DIVISION OF NATURAL SCIENCES AND MATHEMATICS
2010-2011 ANNUAL DEPARTMENTAL REPORT

I. EXECUTIVE SUMMARY

Our senior mathematics major pool was small this year, but we still had a very successful graduating class. Dania Morales will be going on to pursue a master's degree in mathematics at Oregon State University. Matt Schmidgall will be pursuing a post graduate degree in rhetoric at Oregon State University. Tim Sasaki and Kady Hossner will be entering M.A.T. programs at WOU and Multnomah University, respectively. Finally, Andrea Olson will be interning as an actuary at Standard Insurance Company.

The Mathematics Department worked closely with SEP to help their students with MTH 70 and MTH 95. We have introduced Supplemental Instruction Tutors, where a mathematics major meets twice a week for one hour with the SEP students to help them understand the material in the courses, create better study habits, and adjust to college life more easily. Chris Tasner and Anna Kralovec worked as mathematics majors in this program. We will have a formal number of the course next year for each course MTH 72 and MTH 97 (to indicate their similarities to their respective courses.

The Mathematics Department was excited this year to have three successful searches, 2 tenure-track hires and one visiting professor hire. With the extremely late notice we received that Mary Beisiegel would not be returning for the 2010 – 2011 academic year, we had to wait a year before hiring her replacement, which ended up being Matt Ciancetta, from CSU Chico. With Klay Kruczek's departure, we were able to use the same applicant pool to hire Breeann Flesch for his replacement. We also have a large number of sabbaticals coming up in the next few years. We appreciated Dean Scheck's willingness to accommodate our needs and hire a visiting professor to help cover the classes when these faculty members take their sabbaticals.

II. ENROLLMENT TRENDS

In the Mathematics Department, the courses serve four types of clientele: our courses for mathematics majors, the service courses (mostly MTH 70, MTH 95, MTH 105 and MTH 111) satisfy the general population; MTH 211 – 213 and MTH 396 serve pre-service K – 8 teachers, and MTH 392 – MTH 398 and MTH 492 – 495 are for preservice K – 8 teachers wishing to teach mathematics. The hope is students do not delay taking mathematics courses until their junior or senior years. All this does is make the situation worse for those who fear mathematics.

The number of students pursuing a mathematics major had remained steady in the mid-30's over the previous years, but it seems we have more mathematics majors coming up. Our introduction to proofs class, which is taken by mathematics majors early in their time here, has increased from an enrollment of 20 students to almost 30 students in the past couple of years. With the result of the credit switch (from three to four credit) of upper level mathematics courses, students need to take less upper division electives. Although we used to offer three electives per quarter, we are down to offering at most two per quarter because of this reduction in required electives. The reduction in the number of electives required and the increase in the number of mathematics majors / minors may counteract each other, but we still feel we will only be offering at most two

electives each quarter. This reduction in electives offered will allow the department to reallocate its resources to help with cover issues with other enrollment trends.

There has been a significant increase over the years of students in the general service courses. Because of this and the desire for students to take mathematics their freshman or sophomore year, the number of sections of MTH 70, MTH 95, and MTH 111 has increased greatly in the past couple of years. For the 2010 – 2011 academic year, we increased the number of sections of MTH 105 offered each quarter to three because the two sections of this course filled up so quickly each quarter. These sections still filled up. We may need to go up to four sections each quarter, but we are waiting to see the effect of last year's increase in the number of sections on future years. It seems more freshmen are able to get into the class now, which was our goal.

As a result of changes in degree requirements for students in the natural sciences, the enrollment in the calculus sequence has increased as well. This has now been handled. In the past students who placed into MTH 112 had to wait until the winter to begin taking mathematics. This also delayed these students from taking MTH 251. With the reallocation of resources due to the reduction of upper division mathematics electives offered, the department offered another sequence of MTH 112 (fall), MTH 251 (winter) and MTH 252 (spring). We also do not know what the effect of the nursing program will be on the enrollment in MTH 243. We will have the visiting professor, Matthew Nabity, teach some of the sections of MTH 243 to introduce a new perspective on the course.

The enrollment in the introductory mathematics courses for preservice K-8 teachers has been steady, but we plan to offer a different trailer sequence of the foundations sequence (MTH 211 – 213) beginning in the spring 2011 to help students who miss one course in the sequence. We will still offer five sections of these courses each quarter (Fall 2011: 2 sections of MTH 211, 1 section of MTH 212, and 2 sections of MTH 213). The department continually encourages students who excel in the foundations sequence to pursue a focus in mathematics, as the world can always use more qualified and enthusiastic mathematics teachers in the classroom. This push has increased the numbers in the courses specifically designed for middle school teachers. We do not yet know the effect of the change in the degree requirements for pre-service K – 8 teachers put forth by the College of Education last year. All pre-service early childhood / elementary teachers will have to take one more mathematics class, but they will no longer choose two focus areas. This could increase the number of mathematics "focus" classes offered, but so far it has not really had an effect on the enrollment..

Even with the increase in sections in our general education courses, the numbers for July indicate we may need to add a section of each of these general education classes since MTH 70, MTH 95, MTH 105, MTH 111, MTH 243, and MTH 251 each have less than 10 seats left in each class (with 3 SOARs still to go).

III. SUMMARY OF PROGRAM CURRICULUM CHANGES

Please provide a BULLET summary of program curriculum changes that were initiated this past year. In your summary, provide a brief short title/description of the change, the

status of the change (options: proposed, final approval pending, approved, in new catalog), and a list of program outcomes to which the change is linked.

We only had a few minor course changes.

- We changed the prerequisites on MTH 338, MTH 341, and MTH 441 to reflect the current feeling of the department of prior knowledge in order to succeed in each of these courses.

- We added MTH 72 and MTH 97, which are supplemental instruction courses supported by SEP for MTH 70 and MTH 95, respectively.

IV. PROGRAM ASSESSMENT ACTIVITIES AND RESULTS

Provide a BULLET summary of program assessment activities and results from the past year, include evidence that the assessment activities are leading to the improvement of teaching and learning. Include Embedded Assessment Results, Other embedded approaches, and Exit and Proficiency Exams.

- **Major Field Test in Mathematics given to seniors (Finished in 90th percentile in the nation)**: Administering the Major Field Test, in mathematics has become part of the curriculum for students taking Senior Project (MTH 403 and MTH 404). We continue to be impressed by the student results. In the past, the seniors had finished in the 90th percentile as a class. This year, Tim Sasaki missed one point on the entire exam. The math majors have always been good students, as evident by their participation in local conferences and their attendance in graduate school, but to finish this high consistently is very impressive. The results show that the WOU Mathematics Department is very effective compared with mathematics departments nationwide.

- **Exit Interview for graduating seniors:** An exit interview is given to graduating seniors as well. The interviewer records the student's spoken answers to the questions below and saves them onto the network (the student's name is never recorded). The exit interview's questions focus on student involvement in activities and program involving mathematics both inside and outside the department, plans after graduation, advising (academically and for a career path), and comparing their experience to their friends' experiences in other departments. The department plans to compile the data in the future. Below, you will find the actual questions asked in the exit interview:

WESTERN OREGON UNIVERSITY
MATHEMATICS DEPARTMENT EXIT INTERVIEW

What led you to become a mathematics major?

What do you hope to do after graduation?

Did you know about or participate in these activities:

1. **giving a math talk outside class:** KnewAbout Participated
2. **Math Club math talks:** KnewAbout Participated
3. **Math Club career/grad school talks** KnewAbout Participated
4. **COMAP modeling competition:** KnewAbout Participated
5. **attending a math talk not at WOU:** KnewAbout Participated
6. **mathematics conferences:** KnewAbout Participated
7. **an REU or summer math program:** KnewAbout Participated
8. **internships or practica** KnewAbout Participated
9. **tutoring, paper grading, course TA** KnewAbout Participated

If you participated, were those valuable experiences? If not, why not?

What did you like and/or dislike about your experience as a mathematics major?

Were you advised well within the Mathematics Department, both academically and for your career path?

When comparing your experiences as a mathematics major with that of friends with other majors, have you heard of things that other departments do that you wish we did?

When comparing your experiences as a mathematics major with that of friends with other majors, are there things that we do that your friends wish their major's department would do?

Anything else you would like to add?

- **Applied mathematics major assessment:** While advising students this past year, we realized students were avoiding proof intensive courses by pursuing the applied mathematics track of the mathematics major. Our intention when creating the applied mathematics track was to better prepare students interested in getting a job in industry. The courses currently listed in the applied mathematics track are appropriate, but do not expose the students to enough proofs if they are interested in going into graduate school. To correct this issue, the department will be adjusting the degree requirements for this track by requiring the students to take at least two proof-intensive courses. This proposal will be put forth during the 2011 – 2012 academic year.

- **Senior Project:** Scott Beaver supervised the Senior Project I - II (MTH 404 and MTH 404) last year. This course includes writing a capstone paper, which in most cases would be an expository paper based on a published mathematics paper. The students in this course also present their papers in two one-hour lectures to their fellow classmates and the rest of the department. These presentations are video taped and archived as part of the mathematics department assessment plan. They also present a summary of their paper at the Academic Excellence Showcase. Copies of the rubric for senior paper and presentations are available upon request. Each year, the faculty who is in charge of Senior Project I – II (MTH 403 and MTH 404) is also responsible for archiving the documentation.

- **Embedded Assessment**: The Mathematics Department has an embedded assessment plan in place. Each faculty carries out parts of the plan relevant to his/her department teaching and assignments (archiving samples of student writing and exams, conducting exit interviews, etc.) During the fall, the department will compile the data from the spring. Copies of embedded assessment ideas acquired during the spring can be found in Appendix 2.

- **Assessment of the Effectiveness of Online Homework**: We continue to assess the value of online homework, which is given in MTH 70, 95, 111, 112 and the calculus sequence. This is still in its initial stages, so there is no true data yet, only anecdotal evidence that students find the online homework system effective. We have realized assigning online homework is not enough, so most instructors assign written homework as well. The written homework can either be short projects or standard homework assignments consisting of problems.

V. SWOT ANALYSIS

a. Strengths *(Key words: capabilities, resources, assets, marketing, innovative aspects, value, quality)*

One of the biggest strengths of the department is the senior project, required of all mathematics majors. Although sometimes these projects do not contain original research, we continually send mathematics majors to local and national conferences to give talks. Frequently, our students win awards for their presentations. As evident by the results on the Major Field Test and the awards won at local and national conferences, we have effective degree requirements for our mathematics major. Our majors go into teaching, graduate school, and industry after graduation.

The mathematics preparation of pre-service K – 8 teachers at Western has been recognized by the National Council on Teacher Quality. We have a fairly unique program for the preparation of middle school mathematics teachers as well, since the majority of middle school mathematics teachers outside of WOU are trained as K – 8 teachers (not enough mathematics content) or as high school teachers (not the appropriate content and not enough pedagogy). We have the perfect blend of content and pedagogy for these future middle school mathematics teachers. Because of our involvement at national conferences on the preparation of middle school mathematics, three members of our department and a former member (Maria Fung, now of Worcester State College) were asked by the Mathematical Association of America to compile a volume of articles on this subject. This volume should be finished up this year.

The department instills a confidence with the mathematics majors when they take MTH 311 – 312 (Advanced Calculus I – II), which is taught using the Moore Method (a deductive manner of instruction used in advanced mathematics courses). This course, usually taken during a major's senior year, requires students to prove theorems and present their proofs in front of the class at the board. We feel this method has helped students become quite comfortable at the board, which presumably serves them well once they are in the high school classroom, where the majority of our students end up. Also, in their senior year, and at various places prior, students are offered the opportunity to learn LaTeX (a typesetting program for scientific work) to help make their work look professional. This too will presumably serve them well in their future teaching.

The department, as a whole, is involved in the local and national mathematics community. Cheryl Beaver. Laurie Burton, and Klay Kruczek have been active with three local organizations, either as members or consultants, involved with the training of teachers: TOTOM (Teachers of Teachers of Mathematics), OMEC (Oregon Mathematics Education Council), and ORMATYC (Oregonn Mathematical Association of Two Year Colleges). In September 2010, Western Oregon University hosted the annual meeting of TOTOM, where Cheryl Beaver was president for the year. .Klay Kruczek served as communications office of the Pacific Northwest Section NExT. Laurie Burton and Klay Kruczek served on COMET (the Committee on the Mathematical Education of Teachers), a national committee, and Cheryl Beaver served on the Mathematical Association of America's Committee on Minicourses. Each member of the department also give talks and chair sessions at local and national conferences. For example, Scott Beaver gave a presentation in Washington D.C. in June entitled, "A Modified Moore Method for Small Advanced Calculus Classes of Predominantly Future High School Teachers."

The department serves in a number of leadership positions on campus as well. Scott Beaver began his term as chair of the Collective Bargaining Team in the fall. He served as the Faculty Union the past couple of years. Klay Kruczek served as the secretary of the Academic Requirements Committee for 2010 - 2011. Hamid Behmard will be President of Phi Kappa Phi and Chair of the Faculty Development Committee for 2011 – 2012. We also run a couple each of oral presentation sessions and poster sessions at WOU's annual Academic Excellence Showcase.

We have the rare feature of a department in that we all get along famously. Even with our minor disagreements on issues, we feel we are a collegial department who respect each other and stand by any departmental decision. Even though Cheryl Beaver and Laurie Burton are the organizers of the annual Sonia Kovalevsky Day held at WOU for high school girls interested in mathematics, the other members participate by either organizing a session or helping with set up. This is just one example of how our department works as a team. Our friends at other universities are always amazed when we tell them we all get along, do not have factions, and share the workload evenly.

One of the biggest strengths for our students is our building, the Marc "Ted" Winters Building. Our mathematics majors use the two study lounges frequently to work with each other on homework and for studying for exams. It is also great to have four SMART classrooms, with one being a 40 station computer lab. We really feel these are selling points when talking to students at the variety of recruitment events we offer at WOU. The building also contains an on-site testing center, which works really well for administering make up exams, placement exams, and the numerous skill tests we offer throughout the quarter.

While talking to other colleagues across the country, we have learned we are fairly unique in that the tenure-track faculty usually teaches a good number of the sections of MTH 111 College Algebra. This is a great opportunity for us to learn what sort of background these students might be lacking. We then try to discuss this with our graduates who teach high school to see if they can help with these issues. This year, the tenure-track faculty members were unable to teach many sections of MTH 111 because of a tenure-track faculty shortage, but we plan to have this change during the 2011 – 2012 academic year with our new hires.

b. Opportunities *(Key words: market developments, industry trends, nice markets, innovation, partnerships)*

With the addition of Rachel Harrington to the College of Education a couple of years ago, we have an opportunity to collaborate with her on teaching a few more courses for in-service middle school mathematics teachers. These courses are usually primarily offered in the summer, and we have had low enrollment for these courses in the last few years. We are hoping with Rachel's involvement in the local schools, we can offer these courses more often during the regular portion of the academic year and offer courses that may appeal to the needs of these in-service teachers. Cheryl Beaver and Klay Kruczek have already collaborated with Rachel on a paper about middle school mathematics teacher training.

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The department would like to see more outreach locally. It would be great if the department had regular meaningful contact with the public schools (Central High School, Talmadge Middle School, and Ash Creek Elementary School) beyond sporadic student teaching.

c. Challenges *(Key words: market demand, sustainability, obstacles, weaknesses)*

The department could really use another tenure-track faculty member. This past year, Cheryl Beaver, Laurie Burton, and Klay Kruczek primarily taught the courses designed for pre-service K – 8 teachers. They all wish to have a more diverse teaching schedule, but with the limited number of faculty members who can teach these courses, their schedules were forced to be heavy in the areas of teacher education. They are all trained as Ph.D. mathematicians, who enjoy teaching mathematics education classes, but would prefer to also teach any number of the service courses, calculus courses, and or courses for mathematics majors. The hiring of Matt Ciancetta should alleviate some of those issues.

Over the years, we have noticed we need to offer more and more sections of MTH 70, MTH 95, and MTH 111. We cannot continue to increase the number of sections of each of these courses for a variety of reasons. First, we just do not have the classroom space on campus to increase the number of sections of each course. We have already begun to offer evening classes to free up classroom space during the day. Increasing the number of sections offered also requires the hiring of more non-tenure-track faculty members. Office space for non-tenure-track faculty is an issue in our department. The offices for these faculty members are already small. Putting two full-time faculty members in an office just creates so many problems. Because the offices are so small, an instructor cannot be in the office while the person has office hours. We are hoping offices open up in Maaske Hall.

In spite of limited time for the immersion required by mathematical research, we have worked hard as a department to stay active in our specific areas. In particular, as a department, each of us averages over one publication per year. What makes this even more impressive is that there is a turnaround time of over a year per submitted paper for some of the mathematics journals we publish in.

We encourage our students to take an introduction to proofs class (MTH 280) during spring quarter of their freshman year. The next time they see a proof-intensive course (MTH 344) is usually during their junior year. We might consider a bit more continuity in the sense of reducing the lull in proof-based courses.

Because we hired three people this year, this took away from our time to dedicate to research, assessment of the program, and assessment of the lower level courses. We hope next year will run more smoothly.

d. Vulnerabilities (*Key words: gaps in capabilities, financials, cash flow, supply chain, disadvantages)*

We currently lack a tenure-track member of the department who can teach the statistics courses needed for a student to go into actuarial sciences or graduate school in statistics. That is a major weakness. Klay Kruczek was thinking about pursuing a M.S. in Statistics on his sabbatical, but he is leaving WOU to be closer to his family in Connecticut, so that void will still remain.

In the next few years, we expect the departure of a few of our non-tenure-track faculty members. In particular, we need another experienced teacher of MTH 105, since the only person who teaches this course (Dennis Spencer) plans on retiring in the next couple of years. If we were to add another tenure line, this new hire could fill one of our major gaps in mathematics education, statistics, and mathematics for liberal arts majors.

VI. PROGRAM PLANNING AND INITIATIVES

Please provide a BULLET summary of any program plans or development initiatives that are in the works.

- As mentioned earlier, we are looking into slightly modifying our Applied Mathematics major because we feel that there are not enough proof-based classes in it currently.

- If we were to get an additional hire with a specialty in statistics, we would look into creating a program to train future actuaries and statisticians.

VII. OTHER ITEMS

VIII. PUBLIC RELATIONS ITEMS FOR PROGRAM PROMOTION

List any notable faculty, student, or program accomplishments that you would like to showcase in public relations outreach.

- **Sonia Kovalevsky Day**: The Math Dept sponsored its 7th annual Sonia Kovalevsky Day this past February. SK Day is a program of hands-on workshops and talks for high school women students and their teachers, both women and men. The purpose of the day is to encourage young women to continue their study of mathematics and to assist the teachers of women mathematics students.

- **Major Field Test**: The mathematics majors continue to do very well on this exam.

- **Student talks and awards**: Since August 2010, our mathematics majors have given talks at MathFest 2010 – 2011 (the annual summer conference of the MAA), the annual meeting of the Pacific Northwest section of the MAA, the Northwest Undergraduate

Mathematics Symposium, and the Nebraska Conference for Undergraduate Women in Mathematics.

- **Laurie Burton** is the co-author for the ninth edition of the **Mathematics for Elementary Teachers: A Conceptual Approach** textbook and the ninth edition of the **Mathematics for Elementary Teachers: Activity Approach** workbook published by McGraw Hill January 2012.

APPENDIX 1. FACULTY AND STUDENT ACCOMPLISHMENTS

I. FACULTY AND STAFF ROSTER

Cathy Aune	Non-tenure-track faculty member
Cheryl Beaver	Associate Professor
Scott Beaver	Associate Professor
Hamid Behmard	Professor
Laurie Burton	Professor
Avery Cotton	Non-tenure-track faculty member
Stephen Greco	Non-tenure-track faculty member
Klay Kruczek	Associate Professor
Stanley Leung	Non-tenure-track faculty member
Andrew Nerz	Non-tenure-track faculty member
Sharyne Ryals	Office Specialist
Dennis Spencer	Non-tenure-track faculty member
Mike Ward	Professor
Ron Wiebe	Non-tenure-track faculty member

II. FACULTY HIGHLIGHTS

a. Teaching

- Scott Beaver worked with senior mathematics majors on their research projects in MTH 403 and MTH 404 (Senior Project I-II). Although a portion of the project does not involve original research, there usually is some part of the senior project where students perform original research.

- Cheryl Beaver and Klay Kruczek, along with members of the Biology Department, made a presentation at New Student Week entitled How to Succeed in Mathematics and Science.

- In the winter, Cheryl Beaver, Laurie Burton, Avery Cotton, Klay Kruczek, Andrew Nerz, and Ron Wiebe offered a one-credit seminar for students interested in teaching high school mathematics. It was very successful, and the department plans to offer it in future years as well.

b. Scholarship

Publications:

C. Beaver, Burton, Kruczek and Fung (Worcester State College)

MAA Notes Volume

Based on work offering and leading sessions on the mathematical education of middle school mathematics teachers, the Mathematics Association of America invited us (C. Beaver, Burton, Fung and Kruczek) to submit a proposal to compile and edit a collection of articles and resources, "*Programs, Courses and Resources for Training Preservice Middle School Mathematics Teachers"* as a volume in the MAA Notes Series.
Final stages of manuscript resolving spring 2011.

C. Beaver, Harrington (WOU), Kruczek,

"The Mathematics for Middle School Teachers Program at Western Oregon University**,"**
In progress as part of MAA Notes book. This paper has been extensively peer reviewed by the MAA Notes board, in addition to the Burton, Beaver, Kruczek and Fung work.

C. Beaver

"Identification of Error Types in Preservice Teachers' Attempts to Create Fraction Story Problems for Specified Operations" accepted to School Science and Mathematics. (co-authored with Cheryl McAllister, Southeast Missouri State University)

Burton and Kruczek

"Visual College Algebra for Teachers"
In progress as part of MAA Notes book. This paper has been extensively peer reviewed by the MAA Notes board, in addition to the Burton, Beaver, Kruczek and Fung work.

Burton

"Mathematics for Elementary Teachers: A Conceptual Approach," ninth edition
Burton co-author 8e (2010) and 9e (2012)
9e will be published January, 2011 with a publication date of 2012.

"Mathematics for Elementary Teachers: An Activity Approach," ninth edition
Burton co-author 7e (2007), 8e (2010) and (9e 2012)
9e will be published January, 2011 with a publication date of 2012.

Kruczek

"Potential-Based Strategies for Tic-Tac-Toe on the Integer Lattice with Numerous Directions," *The Electronic Journal of Combinatorics,* 17(1), 2010 (co-author Eric Sundberg, Occidental College)

Presentations:

C. Beaver

Group Signature Schemes: How to share a secret without telling it", at Joint MAA/AMS Mathematics Meeting, New Orleans, LA , January 2011

Invited Workshop leader – presented a technology based workshop to high school students attending the first Math Day at Pacific University, March 2011

Fraction and Decimal Games, Northwest Two Year College Mathematics Conference, Skamania, WA, May 2011

S. Beaver

A Modified Moore Method for Small Advanced Calculus Classes of Predominantly Future High School Teachers, 14th Annual Legacy of RL Moore Conference, Washington, DC., June 2011:

The Wonderful (But Not Too Mysterious) World of Fourier,' Willamette University Mathematics Colloquium, October 2010

Kruczek

Paul Erdős: "The Man Who Loved Only Numbers", Pi Mu Epsilon Invited Speaker, WOU, May 2011

Using Facebook in a Discrete Mathematics Course, AMS/MAA Joint Mathematics Meetings, New Orleans, LA, January 2011

On the Use of Fractional Matchings to Find Pairing Strategy Draws in N^d Tic-Tac-Toe, AMS/MAA Joint Mathematics Meetings, New Orleans, LA, January 2011

Ward

Cantor-like Sets, WOU Pi Mu Epsilon/Math Club Talk, April 2011

Grants

Beaver, C and Burton

Sonia Kovalevsky Mathematics Day for High School Girls, WOU Foundation, 2011

Beaver, S

Awarded WOU Faculty Development Category IV Grant, to research off-diagonal decay inheritance of factors of bi-infinite matrices, to be applied Spring 2012.

Research

Beaver, C

Together with a colleague Cheryl McAllister at Southeast Missouri State University, they have continued work on their fraction study (the initial paper is due for publication at the end of 2011).

Ward

Studied Loops and Cayley-Sudoku Tables, with Kady Hossner '11. Work will continue and writing of an article will occur during sabbatical next year.

c. Service

Cheryl Beaver

- Faculty Senator

- Co-organized with Stuart Boersma of Central Washington University the first annual Kryptos Contest. The contest is sponsored by the Pacific Northwest section of the Mathematical Association of America. We hope to make this an annual event (see http://www.wou.edu/~beaverc/Kryptos/Kryptos_index.htm).
- Member MAA Minicourse Committee.
- Member AWM (Association for Women in Mathematics) Sonia Kovalevsky Day committee.

Scott Beaver

- WOUFT Collective Bargaining Team Chief Negotiator and Chair.
- Marshal, 2012 WOU Commencement.
- Faculty Advisor, William Lowell Putnam Math Competition Team.
- Treasurer, WOUFT
- AFT-Oregon Treasurer of the Year, 2010-11.

Hamid Behmard

- Chair, Faculty Development Committee
- Treasurer, the National Honor Society of Phi Kappa Phi
- President elect, The National Honor Society of Phi Kappa Phi

Laurie Burton

- Curriculum Committee
- External tenure review for Mathematics Education Faculty, Bard College, Annandale-on-Hudson, NY

Avery Cotton

- Led a session at the SEP Summer Bridge Program

Klay Kruczek

- President, Oregon Mathematics Education Council, November 2008 – January 2011
- Communications Officer, Pacific Northwest NExT Section, April 2007 – June 2011
- Academic Requirements Committee (NSM Representative)

Michael Ward

- Joint Committee on Faculty Evaluation
- Pi Mu Epsilon (national math honor society) chapter advisor

Departmental

- Cheryl Beaver and Laurie Burton, with the support of Scott Beaver, Klay Kruczek, and Mike Ward, organized the Sixth Annual Sonia Kovalevsky Day in February of 2011. The above mentioned faculty and several of the Mathematics Department students participated in the activities for that day. Sonia Kovalevsky Day is a program of hands-on workshops, talks and a problem-solving contest for high school women students and their teachers, both women and men. The purpose of the day is to encourage young women to continue their study of mathematics and to assist the teachers of women mathematics students.

- Klay Kruczek and Mike Ward assisted a former student secure an internship at Standard Insurance with alumnus Charlie Dolezahl.

III. STUDENT ACHIEVEMENTS

- **Major Field Test**: In 2011, **Tim Sasaki**, BS Math 2010, scored a 49//50 on the Mathematics Major Field Test, put out by ETS.

- Tim Sasaki has been accepted into the WOU MAT program. Kady Hossner has been accepted into the MAT Program at Multnomah University

- **Student talks**: Since August 2010, our mathematics majors have given talks at MathFest 2010 and MathFest 2011 (the annual summer conference of the MAA), the annual meeting of the Pacific Northwest section of the MAA, and the Northwest Undergraduate Mathematics Symposium.

  At the Second Annual Northwest Undergraduate Mathematics Symposium, held at Oregon State in April 2010, L**aura Waight** (BS Math 2010) won the Best Short Talk Award, **Nick Gard** (BS Math 2010) won the Pi Mu Epsilon Award, and **Mitch Staehle** (BS Math 2010) won the SIAM Award. This year's conference was held at Reed College, where four WOU students gave talks. There were no awards given out this year at the Symposium.

- **Andrea Olson**, BS Math 2011, and **Heather Johnston**, BS Math 2012, attended the 2011 Nebraska Conference for Undergraduate Women in Mathematics. At this conference, Heather gave a talk entitled *Chord Recognition Through Wavelet Decomposition*.

- **Matt Schmidgall,** BS Math 2011, will be going to graduate school to study rhetoric at Oregon State University

- **Heather Johnston** has been accepted to the 2011 REU on Mathematical Modeling in Ecology and Physiology at Texas A&M University.

- **Ariel Setniker** has been accepted to the REU at Michigan State University.