

presented in person. Each style of orientation session presents the instructors contact information, office hours, and expectations for student performance in the course.

7. *Summarize the institutional policy for faculty course load and number of credit hours taught, compensation, and ownership of intellectual property.*

In regard to faculty course load, again referring to the UAM Faculty Handbook,

“The course load for fulltime faculty holding the rank of instructor is 15 semester credit hours. The course load for fulltime faculty holding the rank of Assistant Professor or above is 12 semester credit hours.”

Distance education courses are treated as part of faculty’s standard workload. Thus, distance technology courses are viewed the same as classroom courses in the area of workload, credit hours taught, and compensation. Faculty is given a special one-time incentive payment for development of each new online course that they teach.

In regard to ownership of intellectual property in the area of previously copyrighted materials, the UAM Distance Education faculty handbook sets forth the following guidelines for the use that all faculty must abide by:

“Under Section 107 of the copyright law (www.lcweb.loc.gov/copyright) passed in 1976, educators are given special exemptions from the law under the Fair Use Doctrine (<http://fairuse.stanford.edu>). Educators may use copyrighted works without first obtaining permission of the copyright holder, within limits. There are four criteria for determining whether copyrighted materials have been used legally under this doctrine:

- (1) Purpose and character of the use;
- (2) Nature of the materials used;
- (3) Amount and importance of the part used; and
- (4) Effect on the market of the use.

This site (www.cetus.org/fairindex.html) shows illustrations of the amounts of copyrighted work that may be used under the Fair use Doctrine.

Copyright and Online Instruction

The Technology, Education and Copyright Harmonization Act (TEACH Act) passed in 2002 expands the Fair Use Doctrine to cover distance education. Generally, exemptions given for face-to-face instruction will apply to online instruction. Please visit the American Library Association website for more information.

Copyright Permission

The Fair Use Doctrine currently enables educators to use copyrighted materials without first seeking permission. An educator can also use any materials where copyright permission has been obtained. The following sites offer more information.

- The Copyright Clearance Center (www.copyright.com) will obtain permission for educators; a fee is attached to this service.
- The Copyright Management Center at Indiana University/Purdue University site has information on how to seek copyright permissions.
(http://www.iupui.edu/~webtrain/web_samples/cmc.html)
- The US Copyright Office (www.lcweb.loc.gov/copyright) allows one to search a database for copyright ownership.”

In regard to course ownership of intellectual property developed by University faculty, please refer to attached Appendix F – University of Arkansas Board of Trustees Policy 210.2 regarding course ownership. In summary, this policy states that in most instances, faculty will own the copyright to material they have created, and retain the right to update, edit, or revise their work. Faculty also will receive all revenues of commercialization of content they create of their own initiative. For materials developed in regard to faculty contract employment pursuits, the University will retain the right for all revenues, but may decide to share such revenues with the developer at the discretion of the University.

Majors/Declared Students

1. *State the number of undergraduate/graduate majors/declared students in each degree program under review for the past three years.*

The number of declared Mathematics majors over the past three years has remained fairly constant at near 20 majors. Typically, there are more freshmen Mathematics majors than any other year; however, a number of those students change their major prior to their sophomore year. The numbers remain fairly constant for the remaining three years. The table below shows the number of mathematics majors per class over the past three years.

Fall of	2009	2010	2011
Freshmen	5	7	9
Sophomore	5	5	3
Junior	5	3	5
Senior	5	5	4
Spec/Post BS	0	0	1
Total	20	20	22

chosen from the Spring 2010 to Fall 2011 cycle for comparison. For classes taught more than once, only one course was chosen for inclusion. The survey is broken into three question groups. The first section is related to student self-evaluation; the second section is related to instructor evaluation; and the third is evaluation of the course. For comparison sake, the School of Math and Science averages on most questions are near 2, or slightly higher. Most faculty consider questions 24 and 34 to be the most important questions of the survey.

Student Evaluation of Teaching Results

Student Self-Evaluation

1. This course is ----- 1=Required, 2=Elective, 3=Audit

Values expressed in Mean Responses

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.11	1.18	1.00	1.00	1.50	1.33	1.00	1.67

2. My current UAM grade point average (GPA) ----- A B C D E
 3.6- 3.1- 2.6- 2.0- 0.5-
 4.0 3.5 3.0 2.5 1.9

Values expressed in Mean Responses – A=1 B=2 C=3 D=4 E=5

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.22	2.00	1.60	2.29	1.67	1.83	2.17	1.33

3. I am presently a ----- Fr So Jr Sr Other

Values expressed in Mean Responses – Fr = 1, So=2, Jr = 3, Sr = 4, Other = 5

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.11	3.00	3.60	3.00	3.43	3.33	2.50	3.50

4. Number of times I was absent from this class ----- 0 1 2 3 4+

Values expressed in Mean Responses – 1=0 absences, 2=1 absences, 3=2 absences, 4=3 absences, 5=4+ absences

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
3.00	3.09	2.20	2.00	1.17	2.00	2.67	1.83

5. Estimated weekly hours I spent studying for this course ----- 0-2 3-5 6-8 9-11 12+

Values expressed in Mean Responses – 1= 0-2 hours, 2=3-5 hours, 3=6-8 hours, 4=9-11 hours, 5=12+ hours

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.33	2.36	2.60	1.71	1.67	2.00	1.83	1.67

6. My final grade in this course will probably be ----- A B C D F

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.78	2.09	1.60	1.57	2.00	1.67	1.83	1.67

For questions 7-32, responses are on the following scale

**Excel- Very
lent Good Good Fair Poor**
A B C D F

7. My class participation was ----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.33	2.00	2.20	2.29	2.50	2.33	2.67	2.83

8. My interest in taking this course before I enrolled was----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.22	2.64	2.40	2.71	2.33	2.67	1.67	3.00

9. My current interest in this course is----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
3.11	2.55	2.40	2.86	3.00	2.33	1.67	2.67

10. Amount I have learned----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.44	1.64	1.60	2.29	2.60	1.83	1.67	2.00

Instructor Evaluation

11. Explains subject matter so that I understand----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
3.11	1.91	1.80	2.86	2.50	1.67	1.83	1.50

12. Speaks clearly----- A B C D E

Values expressed in Mean Responses- 1=A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.56	2.09	2.00	1.86	2.20	1.83	1.67	1.67

13. Demonstrates knowledge of subject----- A B C D E

Values expressed in Mean Responses- 1=A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.78	1.64	1.60	2.57	2.17	1.33	1.50	1.33

14. Uses appropriate teaching aids effectively----- A B C D E

Values expressed in Mean Responses- 1=A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.22	1.45	1.80	3.14	2.67	1.67	1.50	1.33

15. Promotes independent thought while offering proper guidance----- A B C D E

Values expressed in Mean Responses- 1=A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.22	2.00	1.60	2.57	3.00	1.67	1.67	1.50

16. Encourages effective communication skills----- A B C D E

Values expressed in Mean Responses- 1=A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.33	2.18	1.80	2.71	2.83	1.83	1.83	1.17

17. Is well prepared for class----- A B C D E

Values expressed in Mean Responses- 1=A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.78	1.64	1.60	3.43	2.50	1.50	1.67	1.00

18. Is available for help during posted office hours----- A B C D E

Values expressed in Mean Responses- 1=A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.56	1.18	1.20	1.86	2.17	1.50	1.33	1.17

19. Shows concern for students----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.33	1.18	1.40	2.00	2.67	1.33	1.83	1.33

20. Increases my desire to learn more about the subject----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.67	2.18	1.80	3.14	3.17	2.00	2.33	1.50

21. Comments on my work (tests/assignments) in ways that help me to learnABCDE

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.33	1.91	1.20	2.86	3.00	1.50	1.83	1.33

22. Shows interest in subject matter----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.56	1.55	1.60	2.29	2.00	1.50	1.33	1.17

23. Establishes relevance of subject matter----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.11	1.45	1.60	2.71	2.50	1.50	1.67	1.67

24. Overall effectiveness as a teacher----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.33	1.82	1.60	2.57	3.00	1.50	1.50	1.17

Course Evaluation

25. Goals and objectives clearly stated and are being accomplished----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.89	1.73	1.60	2.29	2.50	1.83	1.67	1.83

26. Course content organized----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.33	1.55	1.80	2.29	2.33	1.50	1.67	1.67

27. Exams based on lectures and assigned materials----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.89	1.36	1.60	2.00	2.50	1.33	1.67	1.50

28. Exam questions clearly written----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.11	1.55	1.40	2.00	2.50	1.50	1.83	1.33

29. Grading procedures based on criteria in syllabus----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.78	1.45	1.40	1.57	2.17	1.67	1.50	1.33

30. Course experiences relevant to subject matter----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.78	1.36	1.80	1.86	2.17	1.50	1.67	1.50

31. Usefulness of textbook----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.00	1.82	1.60	2.57	2.33	1.67	1.50	2.00

32. Usefulness of outside assignments----- A B C D E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.89	1.89	1.55	1.60	3.00	2.33	1.67	2.17

33. Pace of presentation----- A=too slow, B=OK C=too fast

Values expressed in Mean Responses- 1= A, 2=B, 3=C

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
1.83	1.64	1.80	2.00	2.33	2.00	2.00	2.00

34. Overall rating of this course

Excel- lent	Very good	Good	Fair	Poor
A	B	C	D	E

Values expressed in Mean Responses- 1= A, 2=B, 3=C, 4=D, 5=F

Cal I	Cal II	Cal III	Diff Eq	Linear Alg	Discrete	Abstract	Read/Res
2.38	1.73	2.00	2.57	2.50	1.67	1.67	1.83

Each year, graduating seniors are invited to have an exit interview with the Dean of the School of Mathematical and Natural Sciences. Several students promise to come in for a visit, but many do not follow through. This year, two graduating mathematics students did the exit interview. Their responses were very similar to those from previous years. The usual questions asked during the interview and typical responses are found below.

Exit Interview Questions and typical responses

- 1) Ask background information: Name, Hometown, Major, mailing address, email, etc....
- 2) What brought them to UAM?
- 3) How do you rate your time at UAM, 1-5 with 5 being best?
- 4) What were your most favorite parts of your educational experience at UAM?
- 5) What were your least favorite parts of your educational experience at UAM?
- 6) If you could do it over again, would you come to UAM? If no, why not?
- 7) Do you feel that you have received a quality education at UAM? If no, why not?
- 8) Is there anything you would change in your major curriculum?
- 9) Is there anything you would change in your minor (if in Math and Sciences)?
- 10) Was your academic advising adequate?
- 11) What about UAM would you change if you were chancellor for the day?
- 12) What are your plans after graduation?
- 13) What are long term plans?
- 14) Is there anything else you would like to tell us?

Most Common Responses:

- 2) Grew up locally, didn't want to go far away. Have family that work in this area. Came because of athletics.
- 3) Most rank either 4 or 5. Occasionally someone ranks a 3. No student gave ranking of 1 or 2.
- 4) Small classes. Get to know professors and other students very well. Cheap. Lots of work study opportunities. Lots of friends here. I learned a lot.
- 5) Upper level courses not offered often enough. Not big enough to avoid course conflicts with

- multiple sections of some courses. Nothing to do here socially.
- 6) Most answer yes. Those that answer no usually indicate it is for non-academic reasons (lack of social life is most common explanation)
 - 7) Most answer yes. The occasional negative answer is often related to not being able to find a job in the area they wanted after graduation.
 - 8) Reduce the number of labs needed for a degree in sciences. Not teach calculus only at 8:10 a.m. five days a week. More night class offerings.
 - 9) Most say they have no changes. Not require minors to take the lab portion of the courses. Increase the number of upper level options in chemistry and physics.
 - 10) Most say yes. There are a few, especially those that start in general studies, that complain about their first semester advising.
 - 11) This question has a wide variety of replies. Improve buildings. Improve parking lots. Give entire campus wireless access. Build a new entrance to the college that doesn't have to go through Drew Central or Monticello schools. Drop athletic programs. Move the campus into town. Change the mascot. Relax the alcohol rules on campus. Drop the history requirement.
 - 12) Most already have jobs or professional programs in place. A few students planning to teach are too late to enter MAT program, and therefore have to wait a year.
 - 13) Most have specific plans involving family and employment near hometown. A few plan to leave for bigger city.
 - 14) This is most often unanswered

The School of Math and Sciences has not done an employee satisfaction survey in several years; however, we work very closely with the school districts that hire our majors as teachers. We have had no complaints about the ability of our Mathematics graduates teaching in the schools in the area. When reviewing the list of graduates from the last 10 years, Appendix G, you will note that we have teachers in almost every school district in Southeast Arkansas. We often hear that our students are doing an outstanding job. UAM graduates are often praised for their content knowledge. Two years ago, Drew Central High School praised one of our graduates for raising their end of course test scores in the class that he taught to 86% being proficient or above. This year, Hamburg High School has praised us for the outstanding mathematics teachers that we have sent to them over the past few years. They have hired two of our majors and have commented on their outstanding mathematics background. One school official indicated that our first year MAT student was helping the experienced teachers by showing them better ways of presenting material to their students.

Occasionally, we hear directly from alumni. We always ask if they have encountered anything in their profession that would indicate a weakness in the curriculum. Most indicate they have found nothing they would consider a weakness. One graduate, who is now a Mathematics faculty member at a two-year college, indicated that we needed a course in Basic Analysis. This information was passed along to the Mathematics faculty for discussion. Even though we don't have a course by that name in the curriculum, those topics are covered in other courses in our current curriculum.

7. *Describe how the program is aligned with the current job market needs of the state or local communities.*

The entire state of Arkansas is in need of Mathematics graduates. Several high tech industries require graduates from the STEM areas to fill professional level positions; however, few of those industries are in this region of the state. Most of our Mathematics students have the goal of completing their degree in Mathematics, then completing the MAT program to obtain teacher licensure, and staying in the region. The Mathematics major is not slanted toward teaching, but there are specific electives that are recommended for those entering education. The overall degree is very generic and will allow a student to select electives that will give them the best opportunity for success in their planned job. The broad background will allow them to have other options if they choose to change careers.

8. *Provide job placement information for program graduates including the number of graduates placed in jobs related to the field of study.*

Appendix F shows the program graduates for the past ten years with their initial job placement. The largest percentage of our graduates pursued a career in education; however, several have been accepted into graduate programs, and others have taken positions in the private sector.

Program Effectiveness (strengths, opportunities)

1. *List the strengths of the program.*

The major strength in the program is the devotion of the faculty. The School of Mathematics and Natural Sciences has a well-experienced and caring mathematics faculty who are continually searching for better methods to serve the students. Listed below are some of the practices of the mathematics faculty that help our students be successful:

- Some faculty hold office hours in the Computer and Tutoring Center on a regular basis to help students with ALEKS and WebAssign software.
- All faculty provide help sessions prior to each exam in their courses.
- Faculty write practice exams for students in Intermediate Algebra, who are required to take an end-of-course ASSET exam. It is rare for students to not pass the ASSET exam if they have attended 2 or more of the practice exam/help sessions.
- The math faculty have written three workbooks that are currently used in Introduction to Algebra, Intermediate Algebra and College Algebra. Each workbook is closely aligned with an on-line homework and assessment program.
- The math faculty have a unified goal in improving the quality of mathematics teaching in the public schools. Some faculty are writing grants and holding workshops, others are working one-on-one with public school teachers, while others are involved in curriculum development at the state and national level. We understand that improving the mathematics background of the incoming students will improve our program in the long run.

- Most importantly, the faculty spend endless hours working with students outside of class. Students have learned that the faculty will help them, whether they are having problems in a class, or in need of career advising.

A second strength is the strong ties that Mathematics has to the science fields in the School. The entire School of Mathematics and Natural Sciences works together to support the needs of each program. It is very common for faculty from each discipline to work together in curriculum design, in research, or on committees. Informally, faculty from different disciplines discuss when and how topics should be introduced to best support their programs. Members of the Physics department often use Mathematics students in their research. Faculty in Mathematics often serve on Pre-Med committees, which has an outstanding acceptance rate over the last ten years. Mathematics faculty often provide help sessions for the students taking admissions exams, such as the Pharmacy College Admissions Test (PCAT). The Mathematics faculty are involved with, and currently direct, the Southeast Arkansas Regional Science Fair.

2. *List the areas of the program most in need of improvement.*

An important area that needs improvement is the pursuit of scholarly activities outside of teaching. No math faculty members currently have ongoing research projects, nor do any have publications in the past ten years. The only grants that have been sought have been No Child Left Behind grants for doing teacher workshops. An improvement in this area would strengthen the overall program and allow consideration for promotion to the rank of Professor for those faculty.

A second area that needs improvement is staffing. Our current Mathematics faculty not only teach program courses, but also general education and remedial courses. The faculty spend a very large amount of time dealing with students in these courses because they are so often poorly prepared when they enter college. This is one reason that an emphasis has been placed on improving teaching in the public schools. These remedial and general education classes are typically larger than they should be, and the faculty member spends a lot of out of class time with these students. Additional faculty members in Mathematics would make these classes smaller and hopefully improve the success rate in those courses. This would free up time for the current faculty to be more involved with scholarly activities and also make it possible for some of the upper level courses to be offered on a more regular basis.

Another area that needs improvement is in the area of technology. Each classroom has the basic permanently mounted, computer, document camera, and projector. Our students enter the MAT program and are immediately placed in a school district that uses smart boards, Promethean™ display systems with student feedback capability, and other high tech hardware and software. Our students need to experience this prior to entering the classroom. Many of our software packages, such as Maple™, are very old simply because we cannot afford the high cost of upgrading. We make the attempt to have very good computers in our computer lab; however, the Science Center computer lab is small; it has only ten computers. This is inadequate for a reasonable size class to use. Scheduling conflicts for computer labs in other buildings often means that we don't get to use the lab during class time. Our building currently does not offer wireless access to students; however, there are plans to do so within the next two years.

The physical facilities are in great need of replacement. The Science Center continues to break down. There are several roof leaks that not been able to be repaired. The cement steps are breaking apart in several locations around the building. Mold grows very well in the shady overhangs and shaded sides of the building. There is no return air in the labs which have hoods, so lots of air from underneath the building is pulled into the rooms. This has caused major problems with mold growing behind hoods, underneath the lab benches, and under the heating/cooling units. Windows are original to the building. Most do not fit well and allow air and occasional rain tenter the building. None offer any insulation. Since some of the windows are on the walls adjacent to the raised sidewalks, security is non-existent. Many of the windows locking mechanism is rusted to the point of not working at all. One digital projector system was stolen from the Science Center in 2010, from room A-1. Exterior doors offer little security. Frequently rain is blown through the doors. During weather changes more than one door sticks allowing air conditioning to be lost and creating very distracting noises. Multiple work orders have been filed to repair doors; however, essentially no improvements have been made. At times during the past year, certain doors were blocked off due to problems with the doors dragging. Even with its problems, many students think of the Science Center as their second home and hang out in the building between classes. Great efforts have been made to make the Science Center a comfortable learning environment.

3. *List program improvements accomplished over the past two years.*

Continuous growth and improvement of all the programs in the School of Math and Sciences is a goal. Other than small changes, the curriculum has been very stable over the past several years with no major curriculum changes during the last two years. Some improvements have been made in specific courses, such as the development of in-house published workbooks for the remedial and general education courses. The addition of the on-line homework and assessment software packages to several courses has made it possible for students to get immediate feedback while working at home. This will also become a part of the assessment plan for these courses.

A recent emphasis has been placed on assessment of all the Mathematics and Natural Science programs. Within the past year, several faculty members have implemented several assessment methods into their courses, with the most common being pre-test/post-test. Initial results from that assessment will be available for the upcoming Annual Assessment Report.

With so many of the Mathematics majors planning on a career in education, the School of Education has complied with our request for a minor in Teaching and Learning. This provides much needed experience in education prior to entering the MAT program. Although this is not part of the Mathematics program, the request was made specifically to accommodate Mathematics students. The students in the program taking the education courses are very pleased with the minor at this time.

Within the past two years, installation of projectors, document cameras, and computers was completed in the last 3 classrooms in the Science Center. At this point, all classrooms are equipped with the basic equipment for using Powerpoint™ or a document camera in teaching presentations. The last three rooms are currently being wired for internet as well.

The Science Center computer lab was upgraded with new computers with large amounts of memory to better serve those using educational software. The Mathematics tutoring center was moved back to the Science Center. This is better for both students needing help and the tutors.

- 4. Describe planned program improvements, including a timetable and the estimated costs. Identify program improvement priorities.*

The School of Mathematical and Natural Sciences has several improvements planned.

The School plans to do a better job promoting all of our majors, including Mathematics. The graduates from the School of Math and Sciences have been extremely successful in their post graduate endeavors. The Mathematics program has produced several outstanding teachers in the community. Others have been quite successful in traditional mathematics graduate programs. Better publicizing our success will aid in recruiting. This is expected to be done very quickly at very low costs. This can be done in part using the Web, or by using traditional media outlets.

More effort must be placed on recruiting top-notch students into the Mathematics program. Based on the Arkansas Department of Higher Education standards, we are barely above the viability line of an average of four graduates per year over a running three year period. The first planned recruiting effort will be to get more of the local students that are taking the Advanced Placement Calculus and Statistics courses to our campus. These students have the ability to come directly into the program and move forward without having to take pre-requisite or remedial course work. We also plan to expand our recruiting area to other regions of Arkansas and expand into the border regions of Louisiana, Mississippi, and Texas. Developing new connections in other regions could take multiple years. The money spent can vary, depending on what we want to do to get into other areas; however, the level of success is most likely going to be directly related to the money spent.

More effort is going to be placed on keeping contact with our graduates. Prior to several retirements in 2007, there was a very good newsletter published in the department. Since that time, no one has wanted to take on the task, and also budget cuts have limited the publishing and mailings that we can do. Re-establishing the newsletter is a high priority for the School of Math and Sciences. It may take one to two years to get the newsletter revitalized. It will likely take about \$2000 per year to produce the newsletter and mail to graduates if we keep the current format. If we go entirely to a web based newsletter, costs could be significantly less.

The Mathematics program plans on continued improvements in the area of assessment. We recognize that has been a weakness for several years, and plan to take measures to bring the assessment process up to where it should be. Assessment changes can take several years to implement and see results, but some results should be seen within the first year. The cost for these improvements should be very low in cash; however, could be quite large when figured with man-hours.

The largest improvement planned is for facilities. The building is near the end of its useful life, and architects have recommended that it be razed and a new building built. This will allow for

growth, as well as provide a nice learning environment for the students. It will also be a major upgrade in technology for the classrooms and also computer labs. The expected date for the new building is several years away, and the cost is estimated for approximately \$25M.