

UAM OPERATING PROCEDURE 620.2
RE: Annual Review Policy Guidelines

June 5, 2017

Annual Report by Academic Units

By August 1 of each year, deans will submit to the vice chancellor for academic affairs a succinct and focused annual report of significant achievements and changes in their units for the previous academic year. These reports will constitute a major source of information regarding institutional achievement and effectiveness throughout departments, offices and units, colleges, and schools. The report must be submitted in both paper and electronic file formats.

Unit Data

- Faculty
 - Faculty (full-time, adjuncts and part-time) qualifications, area(s) of responsibility, teaching loads, other assignments including any release time and stipends (* new faculty designation)

Name	Highest Degree	Rank	Tenure Status	Teaching Load/Sem	Release time	Stipends
Abedi, Farrokh	Ph.D.	Assoc Prof. of Math/Asst. Dean	Tenured	9 hours	3 hours/term for Asst. Dean of Math	
Bacon, Ed	Ph.D.	Instr/Emeritus of Biology	Non-tenure track	15 hours	6 hours/term for Dir. of Museum and fundraising	
Barton, Laura	M.S.	Instructor of Math	Non-tenure track	15 hours		
Bramlett, J Morris Ph.D.	Ph.D.	Prof/Dean/ Chemistry	Tenured	6 hours		
Burrows, Ross	Ph.D.	Asst Prof. of Physics	Tenure Track	12 hours		
Chappell, Jessie	M.S.	Instructor of Biology Labs	Non-tenure track	15 hours	3 hours/term for Biology Stockroom Manager	
Dolberry, Charles	Ph.D.	Assoc. Prof of Math	Tenured	12 hours		
Martin, Carole	Ed.D.	Assoc. Prof. of Math	Tenured	12 hours		
Fawley, Karen	Ph.D.	Professor of Biology	Tenured	12 hours	3 hours every other spring for Herbarium Director	

Name	Highest Degree	Rank	Tenure Status	Teaching Load/Sem	Release time	Stipends
Fawley, Marvin	Ph.D.	Assoc. Prof. /Asst. Dean	Non-tenure track	0 hours	Assistant Dean for Science and Research, Director of the UAM Minority Research Program	
Fox, V. Lynn	Ph.D.	Asst Prof. of Math	Tenure Track	12 hours		
Gavin, Jared	Ph.D.	Asst Prof. of Math/Physics	Tenure Track	12 hours		
Hatfield, Susan	M.S.	Instructor of Chem Labs	Non-tenure track	15 hours	3 hours/term for Gen/Intro Chem Stockroom Manager	
Huang, Jinming	Ph.D.	Assoc. Prof. of Chemistry	Tenured	12 hours		
Hunt, John	Ph.D.	Professor of Biology	Tenured	12 hours		
Manning, Glenn	Ph.D.	Assoc. Prof. of Biology	Tenured	12 hours		
Morgan, Lauren	B.S.	Instructor of Biology Labs	Non-tenure track	15 hours	3 hour/term for Microbiology Stockroom Manager	
Sayyar, Hassan	Ph.D.	Assoc. Prof. of Math	Tenured	12 hours		
Sayyar, Kelley	M.S.	Instructor of Earth Science	Non-tenure track	15 hours		
Sims, Chris	Ph.D.	Professor of Biology	Tenured	12 hours		
Snyder, Sam	Ph.D.	Instructor of Math	Non-tenure track	15 hours		
Stewart, Mary	Ph.D.	Professor of Biology	Tenured	12 hours		
Taylor, Jeff	Ph.D.	Assoc. Prof. of Chemistry	Tenured	12 hours		
Williams, Andrew	Ph.D.	Assoc. Prof. of Chemistry	Tenured	12 hours		
Grilliot, Matt	Ph.D.	Adjunct Instr. of Biology	Non-tenure track	4 hours		
Belvin, Rebecca	M.S.	Adjunct Instr. of Math	Non-tenure track	3 hours		

- Faculty achievements in teaching, research, and service, especially those of national, regional, or statewide significance.

Several faculty in the School of Math and Sciences are involved in research and other scholarly activities. A complete listing of the projects by all faculty are in **Appendix I** at the end of this document. The products of the research and scholarly activities are expected to be presented at professional meetings and published in refereed journals when appropriate. Below is a list of presentations, publications, and workshops provided.

Presentations at Professional Meetings: (Math and Science faculty and students)

Don White, III. Characterizing the Maintenance Role of MLL1 in Human Acute Myeloid Leukemia. Poster Presentation at the Arkansas INBRE Symposium, Fayetteville, AR, October 2016. (Don won Honorable Mention in Best Biology Poster)

Walker Jarrett. Fabrication of Microcapsules for Acoustically Activated Depolymerization. Poster Presentation at the Arkansas INBRE Symposium, Fayetteville, AR, October 2016.

Rachel Knight. Blood Platelet glycoprotein VI and the progression of sepsis. Poster Presentation at the Arkansas INBRE Symposium, Fayetteville, AR, October 2016.

Grilliot, M. E., J. L. Hunt, and C. G. Sims. Organochloride Pesticides Present in Animal Fur, Soil, and Streambed in an Agricultural Region of Southeastern Arkansas. (Poster). 27th Annual Colloquium on the Conservation of Mammals in the Southeastern U.S., February 16-17, Asheville, N.C.

Hunt, J. L., E. G. Cothran, and T. L. Best. Sexual Size Dimorphism in the Thirteen-Lined Ground Squirrel (*Ictidomys tridecemlineatus*.) (Poster). 27th Annual Colloquium on the Conservation of Mammals in the Southeastern U.S., February 16-17, Asheville, N. C.

Connior, M. B., R. Tumison, D. P. Holland, J. L. Hunt, L. A. Durden, and D. B. Sasse. Survey of Rodents Within Arkansas Game and Fish Commission Wildlife Management Areas. Arkansas Academy of Science, April 7-8, 2017, Conway, Ark.

John Mitchell and Mary Stewart. Analysis of a *Drosophila melanogaster* Ribosomal Protein Gene. Poster presentation at the 2017 Arkansas Academy of Science meeting in Conway AR, April 7-8, 2017.

Jessica Lester, Haley Koenig, Andrew Williams. Determination of Fatty Acid Concentrations in Algae. Poster presentation at the Mid-South Inorganic Chemists Association Fall Meeting

Beth Justice, Drake Palazzi, and Andrew Williams. Determination of Fatty Acid Concentrations in Algae. Arkansas INBRE Symposium, Fayetteville, AR, October 2016.

Andrew Williams (UAM) and Jim Muesser (ATU) Compare phenomenon through physical science and PCP standards. Science Specialist Unit Meetings, Little Rock, AR.

Don White and Andrew Williams. Determination of Fatty Acid Concentrations in Algae. Posters at the Capitol Research Symposium, Little Rock, AR, February 2017.

Drake Palazzi and Andrew Williams. Determination of Fatty Acid Concentrations in Algae, UAM Research and Scholarship Forum March 30th, 2017

Beth Justice, Jessica Lester, and Andrew Williams. Determination of Fatty Acid Concentrations in Algae. Poster Presentation at the Arkansas Academy of Sciences, April 7-8, Conway, AR.

Drake Palazzi, Haley Koenig, Makenzie Pierce, and Andrew Williams. Determination of Fatty Acid Concentrations in Algae. Poster Presentation at the NASA-Arkansas Space Grant Consortium Annual Symposium. Winthrop Rockefeller Institute on Petit Jean Mountain, April 2017.

Fawley, K.P. and Fawley, M.W. 2016. Analysis of *rbcL* DNA sequences and Light microscopy reveal extensive diversity in Clade IIa of the Eustigmatophyceae. Oral Presentation at the Meeting of the Phycological Society of America, Cleveland, OH, July 2016.

Fawley, M.W. Curtis, S., Amaral, R., Eliáš, M., and Fawley, K.P. 2016. Middle School Project Leads to the Discovery of a New Algal Species. Poster Presentation at the Meeting of the Phycological Society of America, Cleveland, OH, July 2016.

Fawley, M.W. and Fawley, K.P. 2016. Extraordinary Diversification of *Nannochloropsis* (Eustigmatophyceae) upon Transition from Marine to Freshwater. Oral Presentation at the Meeting of the Phycological Society of America, Cleveland, OH, July 2016.

Cardona-Otero A.M., Boullie D.N., Morgan L.A., Fawley M.W., and Fawley K.P. DNA Sequence Analysis of Freshwater Eustigmatophyceae from Diverse Locations Reveals Exciting New Taxa. Posters at the Capitol Research Symposium, Little Rock, AR, February 2017.

Cardona-Otero A.M., Boullie D.N., Morgan L.A., Fawley M.W., and Fawley K.P. DNA Sequence Analysis of Freshwater Eustigmatophyceae from Diverse Locations Reveals Exciting New Taxa. Poster Presentation at the Student Research and Scholarship Forum, UAM, Monticello, AR, 03/2017

Boullie D.N., Cardona-Otero A.M., Fawley M.W., and Fawley K.P. Analysis of *rbcL* DNA Sequences and Light Microscopy Reveal New Diversity in Clade IIc of the Eustigmatophyceae. Poster Presentation at the Student Research and Scholarship Forum, UAM, Monticello, AR, 03/2017

Haynes C. C., Knight R.E., Lamb C. W., Baker B., Fawley M.W., and Fawley K.P. Soil Crust Algal Communities of Warren Prairie Natural Area. Poster Presentation at the Student Research and Scholarship Forum, UAM, Monticello, AR, 03/2017

Henning L., Magana J. A., Mendoza V., O' Neal B., Fawley M.W., and Fawley K.P.. Evaluating the Taxonomic Status of Arkansas Twistflower, *Streptanthus maculatus* subsp. *obtusifolius* and Clasping Jewel Flower, *S. maculatus* subsp. *maculatus* (Brassicaceae). Poster Presentation at the Student Research and Scholarship Forum, UAM, Monticello, AR, 03/2017

Haynes C. C., Knight R.E., Lamb C. W., Baker B., Fawley M.W., and Fawley K.P. Soil Crust Algal Communities of Warren Prairie Natural Area. Poster presentation at the Arkansas Academy of Sciences Annual Meeting, Conway, AR, 04/2017

Cardona-Otero A.M., Boullie D.N., Morgan L.A., Fawley M.W., and Fawley K.P. DNA Sequence Analysis of Freshwater Eustigmatophyceae from Diverse Locations Reveals Exciting New Taxa. Poster Presentation at the Arkansas Space Grant Consortium Meeting, Winthrop Rockefeller Institute/Petit Jean Mountain, AR, 04/2017

Boullie D.N., Cardona-Otero A.M., Fawley M.W., and Fawley K.P. Analysis of *rbcL* DNA Sequences and Light Microscopy Reveal New Diversity in Clade IIc of the Eustigmatophyceae. Poster Presentation

at the Arkansas Space Grant Consortium Meeting, Winthrop Rockefeller Institute/Petit Jean Mountain, AR, 04/2017

Invited Symposium Presentation - Non-aquatic/Terrestrial Algae, Fawley, M.W. and Fawley, K.P. Soil Eustigmatophyceae. Oral Presentation at the Meeting of the Phycological Society of America, Monterey, CA, 06/2017

Allie Wynn, Rebekah Dewitt and Lynn Fox. Fuzzy Classification of Chirp Signals. Posters at the Capitol Research Symposium, Little Rock, AR, February 2017.

Allie Wynn and Lynn Fox. Identification of Noise Color via an Infinite Valued Logic System. Oral Presentation at the Mathematical Association of America, University of Oklahoma, Norman, OK, April 2017.

Jinming Huang. Cabbage Inhibits Nitrate Reduction in Other Vegetables during Storage. Oral Presentation at the 25th Annual ASGC Symposium, Winthrop Rockefeller Institute, Morrilton, AR 72110, Apr 21, 2017.

Publications:

Fawley, M.W. and Fawley, K.P. Rediscovery of *Tetraedriella subglobosa* Pascher, a member of the Eustigmatophyceae. *Fottea* 17: 96-102.

Sheldon C., Ficklin R., Fawley K., Fawley M., and Wilson S. Vegetation Diversity in Natural and Restored Forested Wetland Sites in Southeast Arkansas. 2016. *Journal of the Arkansas Academy of Science*, 70:221-231.

Eliáš, M., Amaral, R., Fawley, K.P., Fawley, M.W., Němcová, Y., Neustupa, J., Příbyl, P., Santos, L. and Ševčíková, T. 2017. Eustigmatophyceae. In *Handbook of the Protists* edited by John M. Archibald, Alastair Simpson and Claudio Slamovits. In Press, publication due August, 2017.

Jinming Huang, Cynthia Robinson, Samuel Pope, Mackenzie Willis, Nathan Probst, Joshua Hathcox, Trent Roberts, Daniel B. Kim-Shapiro, and Autumn Webb. Cabbage Inhibits Nitrite Formation in Other Vegetables during Storage, *Food Additives and Contaminants*, (submitted)

Connior, M. B., R. Tumilson, D. P. Holland, J. L. Hunt, L. A. Durden, and D. B. Sasse. In review. Survey of rodents within Arkansas Game and Fish Commission Wildlife Management Areas. *Journal of the Arkansas Academy of Science*.

Cothran, E. G., J. L. Hunt, and T. L. Best. In review. Sexual size dimorphism in the thirteen-lined ground squirrel (*Ictidomys tridecemlineatus*). *The Southwestern Naturalist*.

Hunt, J. L. 2017. Scarlet experiment: birds and humans in America, by Jeff Karnicky (review). *Choice* 54:3749.

Hunt, J. L. 2017. How science works: evolution: the nature of science and the science of nature, by John Ellis (review). *Choice* 54:2735.

Hunt, J. L. 2016. Waterfowl of North America, Europe, and Asia: an identification guide, by Sébastien Reeber (review). *Choice* 54:0667.

Best, T. L., and J. L. Hunt. Mammals of the Southeastern United States (Book). In Review

Walker, James M., James E. Cordes, Glenn J. Manning, and Brian K. Sullivan. 2015. *Aspidoscelis tigris septentrionalis* (Burger, 1950), Plateau Tiger Whiptail, in the Western United States: Individual, Ontogenetic, and Geographic Variation in Color Pattern. *Herpetological Conservation and Biology* 10(3): 935-947.

C. Morgan Wilson, Christopher G. Sims, Stephan J. Schoech, Sarah K. Peltier, and Zachary L. Robinson. A test of the migration-modulation hypothesis in a non-passerine Neotropical migrant, the Blue-winged Teal *Anas discors*. *Journal of Ornithology*, Sept 17, 2016.

Workshops Presented:

Andrew Williams and Kelley Sayyar. State of Wonder Follow up Workshops, September 24th and October 16th.

Andrew Williams and Kelly Sayyar. Methodology of Matter and Meteorology. Arkansas Curriculum Conference, Little Rock, AR November 2016.

Morris Bramlett. Acids, Bases, Equilibrium, and Buffers. UAM ERZ Chemistry Teacher Workshop, Monticello, AR June 20-22, 2017.

Jared Gaven. Introduction to Design, Construction, and Programming using VEX Robotics. UAM ERZ workshop, Monticello, AR June 20-22, 2017.

Carole Martin, Lisa Reed, and Lynn Fox. Equations and Expressions (E²). UAM Summer Institute for Mathematics Teachers Grades 6-9, Monticello, AR, June 2017.

Kelley Sayyar. What Will You See in the Sky Tonight: Astronomy: Constellations and the Planisphere. Pomeroy Planetarium, UAM, Monticello, AR March 31, and April 21, 2017

➤ Faculty and/or student service learning projects

Biology Faculty and Biology Club Stream Team Project. Each year, the group canoes their allocated portion of the Saline River and picks up trash from along the banks. While doing this, the group identifies the different fishes, reptiles, and plants in the ecosystem. They also look for other problems that may damage the health of the river ecosystem, such as unauthorized dumping of waste or unnatural erosion.

➤ Append a listing of college or school awards to faculty for teaching, advising, scholarly activity, research and creative activity, and public service. Include faculty/student research.

Dr. Mary Stewart, Finalist for the 2017 Hornaday Award. May 2017

Dr. Karen Fawley, 2016 UAM Educator of the Year. February 2017

Dr. Karen Fawley, Monticello Advance, Educator of the Week. February 2017.

Dr. Andrew Williams, Monticello Advance, Educator of the Week. April 2017.

Dr. John Hunt, Monticello Advance, Educator of the Week. October 2016.

Dr. Chris Sims, Monticello Advance, Educator of the Week. December 2016.

Dr. Ross Burrows, Alpha Chi Honor Society, Rookie of the Year, 2017.

➤ List of grants, source, purpose and total dollars for the academic year

Fawley, K.P. Soil Crust Algal Communities of Warren Prairie Natural Area \$1,500.
UAM Faculty Research Grant, 2016-2017.

Fawley, K.P. and Fawley, M.W. Diversity and Classification of the poorly known Algal Class Eustigmatophyceae. \$152,273. National Science Foundation, 2012-2017.
(extension awarded 2016)

Fawley, M.W., Fawley, K.P. and Bramlett, M. Equipment to Enhance Biomedical Research and Education at UAM. \$50,000. Funded by Arkansas INBRE, 2015-2016.

Fawley, M.W., Fawley, K.P. and Bramlett, M. Alterations and Renovations to improve Biomedical Research Facilities at the University of Arkansas at Monticello. \$190,000. Arkansas INBRE project renewal, funded by the National Institutes of Health, 2015-2017.

Alice Cardona-Otero received a \$1,500 STEM Fellowship award from the Arkansas Space Grant Consortium for research mentored by K.P. Fawley and M.W. Fawley.

John Hunt. UAM Faculty Research Grant. Survey of Bat Diversity in Southeastern Arkansas. \$1500.

Mary Stewart and John Mitchell. ADHE SURF Grant. Analysis of a *Drosophila melanogaster* Ribosomal Protein Gene. \$3565

Mary Stewart. UAM Faculty Research Grant. Analysis of a *Drosophila melanogaster* Ribosomal Protein Gene. \$1500.

Jinming Huang. NASA-Arkansas Space Grant Consortium. Nitrite Formation in Vegetables During Storage. \$5000.

Andrew Williams. NASA-Arkansas Space Grant Consortium. Measuring Relative Concentrations of Fatty Acids Produced by Algae. \$5000.

Andrew Williams. UAM Faculty Research Grant. Measuring Relative Concentrations of Fatty Acids Produced by Algae. \$1000.

Lynn Fox. UAM Faculty Research Grant. Fuzzy-sets for Threshold Detection in Signal Processing. \$1500.

- List partnerships, MOUs or other special agreements with brief description

UAMS College of Pharmacy-UAM Rural Health Early Admissions Program (RHEAP)

UAM serves, in part, rural populations whose residents are underrepresented in health-related professions. RHEAP will aid in recruiting qualified students from rural and underserved areas to the UAMS College of Pharmacy. Approximately five high school seniors may be accepted into RHEAP each year. Program participants will complete four to six semesters of undergraduate pharmacy pre-requisites at UAM, followed by enrollment at UAMS in the Doctor of Pharmacy (“Pharm.D.”) program. Early acceptance through RHEAP does not guarantee UAMS College of Pharmacy enrollment and acceptance into RHEAP does not create any property interest related to future enrollment. UAMS College of Pharmacy enrollment is contingent upon satisfactory completion of RHEAP-designated courses at UAM

- Significant changes of college/school/programs/departments both positive and negative

Faculty Changes

Alan Gooding will start August 14, 2017. He will fill the math instructor vacancy left by the departure of Haley West in August 2016.

Keith Blount will join the Biology faculty as a new hire August 14, 2017. Dr. Blount was initially offered a position in 2016; however, a technicality prevented him from leaving his post with the Air Force Academy. Keith brings new expertise to the School. His background in parasitology and epidemiology will be especially helpful to the pre-professional students.

Dr. Matthew Grilliot was hired in August 2016 as an adjunct to teach the online Introduction to Biological Science and lab courses.

The Colleges of Technology have had instructor changes related to Math and Sciences. Jill Hood has been hired as a mathematics instructor to replace Elizabeth Jones. Katie Cobb has resigned her position as Biology Instructor at the McGehee campus. A search is currently underway for her position. Connie Smith retired as a math instructor at the Crossett campus. Jeff Fairris has been selected as her replacement. Wendell Gibson did not return as the Anatomy and Physiology instructor on the Crossett campus. Ms. Nora Smith filled in as an adjunct for the remainder of the year. At this point, Anatomy and Physiology will not be offered at the Crossett campus in the upcoming year.

Facilities

The new Herbarium and Plant Research Center was opened in the May 2017. The building will house the Sundell Herbarium, a conference room, a botanical library, office space and labs specifically for plant and genetic research.

Program Changes

Only one change was made to a major in the School of Math and Sciences, but several significant changes are related to the general education and service courses offered by the unit. The changes are discussed in greater detail in other areas of this report. A list of the changes is shown below:

1. Advanced Calculus was removed from the major requirements list, but kept as an elective course for those planning to attend graduate programs in mathematics.
 2. Introduction to Robotics and Basic Engineering was added.
 3. College Algebra with Review was added.
 4. Additional emphasis was placed on non-STEM students taking Survey of Math.
 5. Pre-requisites were enhanced for Anatomy and Physiology I.
 6. Addition of a discussion sections to University Physics will allow the offering of those courses despite low enrollment.
 7. Additional online offerings in some MAED courses were done to support totally online degrees.
- Achievements of students and alumni or former students, especially those of national, regional, or statewide significance. Append a listing of student honors and awards as announced at the college or school honors ceremony and of other students receiving campus recognition.

Dr. X graduated from UAMS College of Medicine. He was #1 in his class all four years of medical school. He also received the only four-year full-paid scholarship to UAMS due to his performance at UAM and on the MCAT exam.

Twelve former UAM students graduated from pharmacy programs this year: 5 from UAMS, 4 from Harding University, 2 from UT-Memphis, and 1 from University of Texas. It is the largest graduating class that did the majority of their undergraduate work at UAM.

Y accepted a one-year research appointment at the National Institute of Health (NIH) National Cancer Institute in Frederick, MD. (June 2017)

Y accepted a summer internship award at the University of Colorado Cancer Research Center (Summer 2016)

Z was awarded a summer internship at Cornell University where he was involved with medical research. (Summer 2016)

R was awarded a summer internship at UAMS, where she studied blood glycoproteins and the progression of sepsis. (Summer 2016)

K and A were awarded the Ed Bacon Outstanding Freshman Biology Student Award. K also received the Walter Godwin Outstanding Freshman Chemistry Student Award. M was awarded the Outstanding Freshman in Mathematics Award.

Five students, out of five applicants were accepted into pharmacy school. Most were selected to more than one school. Out of our last 55 applicants, 54 have been accepted. This year's acceptances and choice of school are:

T	Early Admission	UAMS
J	Early Admission	UAMS
D	Early Admission	Harding University
H	B.S Nat. Science (L)	UAMS
C	B.S. Biol/Biochem	UAMS

Two students, out of two applicants were accepted into medical school. Out of our last 31 applicants, 30 have been accepted. This year's acceptances and choice of school are:

J	B.S. Biology/Biochem	UAMS
D	B.S. Biology/Biochem	UAMS

Three students, out of three applicants were accepted into Optometry school. All did exceptionally well on the OAT examination, and were accepted into multiple schools. The three acceptances and choice of school are:

A	Biology graduate 2009	Opted to go to dental school
L	B.S. Biology/Biochem	Southern College of Optometry
W	B.S. Biology/Biochem	Southern College of Optometry

One student applied to dental school and was accepted:

A	Biology graduate 2009	MaHarry College of Dentistry
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One student applied to a College of Chiropractics and was accepted:

O	B.S. Biology/Biochem	Logan College
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Two students applied to Physical Therapy programs, and one was accepted:

H	B.S. Natural Sci. (L)	Arkansas State University
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O B.S. Biology/Biochem Not accepted

Three students applied to Allied Health programs, and were accepted; however two have chosen to take a different path.

J Early Admission Med Lab Tech.

J has decided to return to UAM for the upcoming year and apply to pharmacy schools, and possibly other programs.

D B.S. Biology/Biochem Cytotechnology

D has decided to apply for a research position at UAMS due to cost of the cytotechnology program.

M B.S. Biochemistry Medical Sonography

Rochester Institute of Technology, New York.

- Attach a listing, where applicable, of chairs, professorships, distinguished professorships, and lectureships and faculty awards given by the college/school.

None

HLC Program/Unit Assessment

Significant achievements and changes of college or school and programs/departments, both positive and negative, including progress related to strategic plans and university priorities particularly student success initiatives/successes.

- **Teaching and Learning**

Progress related to strategic plans and university priorities for the academic year

- Initiatives/action steps to support effective teaching (new strategies, partnerships, use of technology, etc.) (based on program assessment data, summary and analysis: SLOs, retention, graduation rates, teaching strategy changes, curricular changes, etc. and changes made in response to data)

Data from the past few years show that UAM's success rate, measured by a score of C or better, in Intermediate Algebra has been consistently in the mid-30% range. Since this often leads to financial aid probation or loss of aid, it is a killer on retention. Based on discussions at the Arkansas Math Chairs meeting, the Math Pathways meetings, and the Arkansas Multiple Measures meetings, we are not alone in this problem. When talking with students and faculty, there were several reasons why they felt their level of success was poor. The two most common reasons given were:

- 1) Did not do the homework and tutorials on ALEKS
- 2) Too much information was covered for each exam

The two items above were addressed in detail and the following actions were taken:

The faculty felt there were multiple reasons why many students didn't do the out of class work on ALEKS. Some students didn't buy the package because of cost. Some claim to have had trouble logging in. Some students felt that the work in ALEKS didn't match what was in the workbook. Almost everyone felt the homework assignments were much too long.

The first change that was made was a re-write of the workbook. It was greatly cut down in size. Instead of covering every possible method of working a problem, the focus was put on one or two methods. This immediately addresses problem #2 above (too much information on exams), and played a large role in the second change, which was to switch from ALEKS to MyMathLab. This change addresses several issues. It is cheaper, which helps with the problem of students not buying ALEKS. MyMathLab also doesn't require re-purchase if the student fails or drops the course. It is also much more streamlined. It was laid out to perfectly match the new shortened version workbook. There are fewer problems assigned each day so it is less overwhelming. It is also much more user friendly in terms of log in and input. To complete this change, MyMathLab was also adopted for use in College Algebra and Survey of Math so that there would be a seamless transition to the general education math courses from Intermediate Algebra. With these changes being implemented in the upcoming year, there is hope that the success rates, and ultimately retention, improves. The long range success goal is 75% C or better, but we are hoping in the short term to reach 50% success in that course, based on the changes made above.

Another attempt to raise the success rate in Intermediate Algebra was to try Intermediate Algebra with Review, which would have 5 hours instruction per week. Of the 11 students enrolled in class, 4 passed with a C or better (36%). Four others passed with a D; however, a grade of C is required to progress to the next course. We were very disappointed that the approach that was so successful in College Algebra failed to improve the success in Intermediate Algebra. We have discontinued the offering of Intermediate Algebra with Review at this time. We feel that the increased success (mid-40% C or better) of the students in the 8-week Intermediate Algebra courses is the better option.

One area that has been a huge topic in the state, and is now a major factor in the funding formula is the reduction of students taking remedial courses. Many feel that reducing the number of hurdles in remediation will increase student success. In the future we are going to try lowering the number of students going into Intermediate Algebra by allowing lower ACT's into Survey of Math. Many of the

leaders of the Charles Dana Center (from University of Texas) that were involved with Math Pathways felt that students in the Intermediate Algebra ACT range perform about the same in Survey of Math regardless of their remediation efforts in Intermediate Algebra. We are still looking at this information very closely to determine if this is applicable at UAM since the Dana Center's model used greatly different cut off points for placement. Originally, they required a 22 Math ACT for Quantitative Literacy (equivalent to our Survey of Math). They have dropped down to a 19 Math ACT with similar results. UAM is already at a 19 cut off score for Survey of Math. We are considering a slight lowering of the cut off to see if there is an impact on the success rate in that course.

During the year, we have reviewed several measures of student success using pre-test/post-test in some classes, using nationally normed end of course exams, post-graduate entrance exams, and graduate surveys, see **Appendix II**. At this point, no course changes are planned based on this data.

- Initiatives/action steps to support student engagement in the classroom (Ex: effective teaching and learning strategies and tools, including, but not limited to, the expanded use of technology, online materials/tools, campus instructional technology tools, and learner-centered activities, e.g., student-led projects, demonstrations, seminar-style class configurations, etc.

Math Workbook Revisions- In Mathematics, the success rate in remedial courses is low. Intermediate Algebra is traditionally in the mid-30% range and Intro Algebra is often less than 20%. The faculty feel that on some topics, there is simply too much information given to the students and the students are overwhelmed. With this in mind, the faculty have edited the workbooks for those courses. Instead of showing 6 different ways to work the same problem, it has been pared down to showing one, or possibly two methods. The workbook is significantly thinner for the upcoming year than in the past. This will reduce the amount of material covered per exam, and hopefully course grade success will increase accordingly, which will ultimately improve retention.

Mathematics Online Homework and Tutorial- In the past, Introduction to Algebra and Intermediate Algebra have used the ALEKS system for homework, assessment, and tutorial. Many of the faculty feel that the systems used in College Algebra, Survey of Math and other courses are more user friendly. They have spent the entire year reviewing these packages, and have decided to switch to a different package. Their decision came well after the book adoption deadline, so they were encouraged to stick with the current system for one more semester. The faculty feel that the new systems are less overwhelming than ALEKS, and are

more user friendly with mobile devices, which ultimately will lead to more hours spent on homework and tutoring.

Increased Use of Blackboard- Some faculty members in Math and Sciences have greatly changed the way they do things in the classroom because of the encouragement to use Blackboard. Some faculty are attempting to use the program for daily quizzes, and even exams. The students have complained some, and some have complained strongly; however, they do like the immediate scoring feedback from quizzes and exams. Some faculty are very disappointed with the level of Blackboard support the students receive on campus and have stopped trying to use it for testing. However, most are using it as a repository for class notes, answer keys, videos, and external links. Faculty are continuing to experiment and try new things as they become more familiar with Blackboard's features.

➤ Initiatives/action steps to promote student success and persistence

First Day Initiative- On the first day of classes, especially freshmen level courses, we are taking time to teach how to become successful college students. In great detail, we are going over expectations, study tips, who to contact about outside tutoring. Some faculty will do activities to help the students build social connections with classmates.

First Four Weeks- Even though the First Four Weeks Initiative was a title used in the last year of the previous administration, and ultimately not a focus after their departure, the School of Math and Sciences has developed its own version of this initiative. In the first four weeks of the semester, we will have an open house in which every freshmen major, or those interested in our major, will be invited to share refreshments and meet the faculty/advisors. We will host additional meetings where we bring in professionals from pharmacy schools, medical schools, allied health programs, leaders from education, potential employers, and representatives from graduate schools to talk with specific groups of students about their career options and performance expectations to be accepted into their programs. Math faculty are being encouraged to spend time in the tutoring center, along with the tutors, to help the students become more accustomed to using the Math and Science tutoring program. The tutors are visiting classes to introduce themselves to the students. The Sigma Zeta Math and Science Honor Society members will host an event on helping first year students plan for their future. They will talk about developing study skills, academic advising, pre-requisites, specific course expectations, and degree options. The faculty will be closely monitoring the progress of the first year students in their courses. We plan to intervene very quickly at the first sign of trouble in the classroom through direct contact and through Academic Alert. We are considering formalizing many of these efforts by developing a first semester course, Math and Science Orientation, but have not been able to solve student class hour and teaching load problems.

- Curricular Changes (based on program assessment data, summary and analysis: SLOs, retention, graduation rates, teaching strategy changes, curricular changes, etc. and changes made in response to data
 - List any addition/deletion/modification of degrees

Advanced Calculus-When Mathematics underwent program review about five years ago, there were recommendations from alumni and reviewers recommending that UAM add an Advanced Calculus calculus course. It is an especially useful course for those planning to attend graduate school in mathematics, and is related to SLO #5 for our unit which states, "Be prepared to enter graduate or professional school in the appropriate area." The course was added at that time, and made a major requirement. We recently discovered students obtaining the Mathematics degree with the intent of teaching at the middle or secondary level felt the course wasn't appropriate for their degree plan. One student switched to a different major, and others were considering it. At the 2016 Math Chairs meeting, one topic discussed was the Advanced Calculus course. Most of the colleges in Arkansas offer the course, but as an elective, not as a major requirement. Upon review, we felt that the presence of this course was above and beyond the intent of SLO #3, which states, "Have a core knowledge of the major discipline." In 2017, the removal of this course from the major requirements took place. The Advanced Calculus course is still an option; however, it is no longer required by all Mathematics majors. We strongly advise students that are planning to enter graduate school in mathematics to take this course. We are considering future changes that will add one or two of the topics that were covered in the course back into the curriculum, possibly at the Calculus III level.

College Algebra with Review- Due to pressure from the Governor's Office and ADHE, a lot of emphasis has been placed on reducing the number of students taking remedial courses, and also the number of students repeating freshmen level gateway courses. Historically, this has been a problem in mathematics. Classroom performance data was collected for the last several semesters. One piece that was reviewed was the performance in College Algebra relative to the ACT Math score. It was discovered that about 35% of the students with an ACT = 19 were scoring C or better, and some terms that percentage was as low as 27%. Results were slightly better for ACT scores of 20, and 21; however, the percentage was still below 50% passing with a C or better. (ADHE uses C or better as a standard for being successful in a course). After many hours of discussion, the mathematics faculty felt that the best approach to try would be College Algebra section that had additional hours scheduled each week. The pace could be slower, and more time would be used for immediate remediation on related topics. In the Fall 2016, College Algebra with Review was offered as a special topics course. There were 27 enrolled in the course, by request of the student. There were 7 A's, 8 B's, 7 C's, 2 D's, 2 F's, and 1 W. Of the 27 enrolled, 24

passed with a C or better (89%). We were thrilled with the performance of the first class. In the Spring 2017 term, we offered the course again as a special topics course, but had only 5 students enroll. Most were lower ACT students and were students that had repeated math courses previously. Of the five that enrolled, all five passed with a C or better. The administration agreed that this approach was successful and worth the investment of paying teachers for five hours of instruction while the students were paying for a three hour course. Appropriate course approval was received and College Algebra with Review will be offered in the Fall 2017 term as a regular course offering. All students with a Math ACT of 19-21, or students coming from Intermediate Algebra with a grade of C, will be required to take College Algebra with Review. Depending on the success of the course, there will be future consideration of allowing slightly lower ACT's with strong high school GPA's into the course. Increased success in the mathematics area should improve retention greatly.

Survey of Math for non-STEM majors- A change in advising that has taken place in Mathematics is to strongly encourage non-STEM majors to take Survey of Mathematics (ACTS equivalent of Quantitative Literacy) instead of College Algebra. These recommendations have been made to the academic units in the past, but have not gained much traction. With the current push coming from Administration rather than the School of Math and Sciences, the initiative seems to be more successful. Improving the success in mathematics should improve retention greatly since it appears to be a major stumbling block for many.

Introduction to Robotics and Basic Engineering- In recent review of our Pre-Engineering major, both the students and the faculty teaching those courses felt that the students were getting an adequate background in Mathematics, but were getting no real engineering instruction. We had the goal of introducing student to basic principles of engineering while making it a hands-on course. We also wanted a course that might be of interest to education majors since so much emphasis is being put on engineering at the elementary and middle level. Introduction to Robotics and Basic Engineering was developed as a three hour course with an associated laboratory. The course will use basic engineering design software to help design robots. The VEX Robotics kits will be used in assembly. Some simple programming will be used to control the robots. The basic principles of engineering will be taught throughout the course. Hopefully, this course will keep the pre-engineering student more interested in their major, improving retention, and also help the education majors be better prepared for jobs that involve engineering programs.

University Physics Discussion sections- Largely due to a dispute between faculty and administration, our physics program was lost in the late 1990's. Since that time, physics has largely been a service course to the majors in the School of

Math and Sciences. As a result, we have not produced graduates with more than a basic understanding in physics. This has led, in part, to the decline of physics instruction in our regional high schools, and a reduction of students going into physics related jobs. One of the fundamental issues is that due to low enrollment we have been unable to offer University Physics (calculus based). The concepts are the same as what is covered in College Physics (Algebra and Trigonometry based). While it is unlikely that we will ever have a large number of students that need University Physics, we feel it is important for our students to have the opportunity to cover this material so they will be well prepared for their careers. After reviewing what is done at many small colleges, we developed a University Physics course that still uses the same lecture as College Physics, but will also have an additional time period each week to emphasize the calculus connections and derivation of mathematical formulas used. The University Physics students will take different exams than the College Physics students. The labs for the two courses are the same. This will be especially helpful for our students majoring in Pre-Engineering, Mathematics, Chemistry, and some students majoring in Education with the goal of teaching physics. We hope that this leads to future growth in the Physics minor and more success in our Pre-Engineering program. This could be helpful for the students that attend medical school with the intent of specializing in a bioengineering or bio-physics field.

Anatomy and Physiology I Pre-requisites- When the 120 hour limit was placed on majors there were some programs of study that were compressed. With this compression, it became necessary to take certain courses earlier in the college career. Anatomy and Physiology I and lab are courses where this has occurred. Nursing's BSN curriculum now requires Anatomy and Physiology in the fall of the freshman year. For a well-prepared high school student, this is not a problem; however, there was a high failure and drop rate in this course. The Dean of Nursing asked what could be done to improve the retention of pre-nursing students, especially during the first year. It was clear that poor performance in Anatomy and Physiology often led to financial aid loss and even withdrawal from the University. Data was collected, reviewing pass rates and ACT scores. It was discovered that the overall ACT seemed to be a good predictor of success; however, there wasn't a clear cut-off that indicated where an ACT standard should be placed. The majors biology freshmen courses use the standard of ACT of 22 for placement. It was decided that this would be a good starting point for the Anatomy and Physiology course. The recommendation was made that students below a 22 ACT take Intro to Biological Science lecture to gain some basic biology knowledge and mature as a student prior to taking Anatomy and Physiology. The School of Nursing supported this idea, and Curriculum and Standards approval was received. The plan was implemented July 1, 2017. If a student has taken Zoology or other rigorous science courses, exceptions will be considered by the dean. Hopefully, this will improve the success rate of the

students in Anatomy and Physiology in the future, which will ultimately improve retention. Data will be reviewed in the future, and cut-off scores may be adjusted if needed.

- List any addition/deletion of courses (If new/deleted courses were general education, was a request for changes in ACTS listing made?)

New Course: College Algebra with Review. The ACTS list has been updated with the new course number. See discussion above

New Course: Introduction to Robotics and Basic Engineering. This course is not considered a general education course on the UAM campus. See discussion above

- List and briefly describe specific curricular changes that impact student success/retention including variety of course delivery options

Hopefully all curricular changes mentioned above have an impact on student success and retention. One course that will have a different delivery than normal is the College Algebra with Review, which will be offered five days per week over an entire semester for three hours credit. Not only will the class move at a slower pace, but it will allow more time for: remediation in associated topics, in class work, group work, and in class help from the instructor. See discussion above

- List unit/faculty professional development provided throughout the academic year that enhances knowledge of content, instruction, research and/or student persistence/success.

Attendees	Event	Location	Date
Marvin Fawley and Karen Fawley	2016 Psychological Society Meeting	Cleveland, OH	7/16
Glenn Manning	Missouri Herpetological Association Meeting	Bull Shoals Research Station, MO	9/16
Andrew Williams	Midsouth Inorganic Chemist Association Meeting	Memphis, TN	10/16
Andrew Williams, Glenn Manning, Mary Stewart, and Jeff Taylor	Arkansas INBRE Conference	Fayetteville, AR	10/16
John Hunt	Southern Bat Diversity Network Meeting	Asheville, NC	2/17

Attendees	Event	Location	Date
Farrokh Abedi, Hassan Sayyar, and Charles Dolberry	Oklahoma-Arkansas Secional Meeting of Mathematical Association of America	Norman, OK	5/17
Mary Stewart, Ed Bacon, Andrew Williams, Karen Fawley, and Marvin Fawley	Arkansas Academy of Science Meeting	Conway, AR	4/17
Andrew Williams	NASA/ASGC Symposium	Morrilton, AR	4/17
Marvin Fawley and Karen Fawley	2017 Phycological Society Meeting	Monterey, CA	6/17
Morris Bramlett	Arkansas Math Chairs Meeting	Russellville, AR	5/17
Morris Bramlett, Charles Dolberry, Laura Barton, Laura Evans, Crystal Halley and Farrokh Abedi	Mathematics Pathways	Russellville, AR	5/17
Morris Bramlett, Dale Bower, Mark Spencer	Multiple Measures	Little Rock, AR	5/17
Morris Bramlett, Laura Evans, Peggy Doss	15 to Finish Workshop	Little Rock, AR	3/17
Morris Bramlett, Andrew Williams	UAMS College of Pharmacy Academic Advising Workshop	Little Rock, AR	8/16
Glenn Manning	Herpetology Field Research Meeting	Las Vegas, NV	5/17
All MS faculty	Blackboard Training-Fac Dev. Week	Monticello, AR	8/16
Open to all MS faculty; however, approximately 8 attended	School of Math and Sciences WeevilNet and Academic Advising Training	Monticello, AR	10/16
Open to all MS faculty; however, approximately 18 attended	EAB Training	Monticello, AR	3/17
Jeff Taylor, Sam Snyder, Lynn Fox	Blackboard Connect Training	via web, Monticello, AR	10/16

Program Productivity and Program Viability

- **Effectiveness:** The number of progression goals met by undergraduate students. Extra consideration given to progression goals met by students who contribute to closing the attainment gap of underserved populations in Arkansas.

Report in number and percentage of students by academic year.

- Credentials: Certificate of Proficiency, Technical Certificate, Associate, Baccalaureate, Master

Unit	Degree	2012-13	2013-14	2014-15	2015-16	2016-17	3-Year Average
MATHS	Biology Major (BS)	12	16	7	17	18	14.0
MATHS	Chemistry Major (BS)	6	11	12	12	13	12.3
MATHS	Mathematics Major (BS)	2	3	4	8	0	4.0
MATHS	Natural Science Major (BS)	2	4	4	4	7	5.0
Totals		22	34	27	41	38	35.3

- Progression: 15, 30, 45, 60, 90 credit hours

2017

ACAD_PROG	ACAD_PLAN	15	30	45	60	90
MATHS	ALLIED_HTH	1				
MATHS	BIOL_MAJ	11	16	9	17	20
MATHS	CHEM_MAJ	2	5	6	7	5
MATHS	CHEM_MIN					1
MATHS	MATH_MAJ	5	5	3	4	5
MATHS	NAT_SC_MAJ	6	6	3	4	7

2016

ACAD_PROG	ACAD_PLAN	15	30	45	60	90
MATHS	BIOL_MAJ	4	14	6	22	15
MATHS	CHEM_MAJ	3	7	1	6	11
MATHS	CHEM_MIN					1
MATHS	MATH_MAJ	3	3	3	5	
MATHS	NAT_SC_MAJ	7	4	2	4	3
MATHS	PRE_ENG	1			1	
MATHS	PRE_MED	1				
MATHS	PRE_PHARM	1				

2015

ACAD_PROG	ACAD_PLAN	15	30	45	60	90
MATHS	BIOL_MAJ	9	12	17	15	9
MATHS	CHEM_MAJ	2	4	2	13	10
MATHS	MATH_MAJ	2	8	3		5
MATHS	NAT_SC_MAJ	6	4	4	4	4

➤ Gateway Course Success Rates (A, B or C)

Gateway Course Performance by Course, by Year

Year	Gateway Course	Total	Passed (A,B,C)	% Passed	Not passing(D or F)	% Not Passing
2014	ANTH2203	15	5	33%	10	67%
2015	ANTH2203	8	4	50%	4	50%
2016	ANTH2203	12	9	75%	3	25%
2017	ANTH2203	8	5	63%	3	38%
2014	ENGL1013	986	743	75%	243	25%
2015	ENGL1013	1016	762	75%	254	25%
2016	ENGL1013	943	752	80%	191	20%
2017	ENGL1013	878	695	79%	183	21%
2014	ENGL1023	815	616	76%	199	24%
2015	ENGL1023	802	608	76%	194	24%
2016	ENGL1023	811	630	78%	181	22%
2017	ENGL1023	822	617	75%	205	25%
2014	ENGL2283	302	216	72%	86	28%
2015	ENGL2283	241	188	78%	53	22%
2016	ENGL2283	224	163	73%	61	27%
2017	ENGL2283	243	160	66%	83	34%
2014	ENGL2293	293	221	75%	72	25%
2015	ENGL2293	321	263	82%	58	18%
2016	ENGL2293	239	198	83%	41	17%
2017	ENGL2293	301	220	73%	81	27%
2014	ENGL3403	12	12	100%	0	0%
2015	ENGL3403	16	15	94%	1	6%
2016	ENGL3403	14	14	100%	0	0%
2017	ENGL3403	7	7	100%	0	0%
2014	ENGL3413	14	13	93%	1	7%
2015	ENGL3413	21	21	100%	0	0%
2016	ENGL3413	12	11	92%	1	8%
2017	ENGL3413	7	7	100%	0	0%
2014	ENGL3423	24	23	96%	1	4%
2015	ENGL3423	12	9	75%	3	25%
2016	ENGL3423	10	9	90%	1	10%
2017	ENGL3423	12	8	67%	4	33%
2014	ENGL3433	11	10	91%	1	9%
2015	ENGL3433	18	17	94%	1	6%
2016	ENGL3433	13	11	85%	2	15%
2017	ENGL3433	4	3	75%	1	25%

2014	HIST1013	468	367	78%	101	22%
2015	HIST1013	422	301	71%	121	29%
2016	HIST1013	335	254	76%	81	24%
2017	HIST1013	305	244	80%	61	20%
2014	HIST1023	320	242	76%	78	24%
2015	HIST1023	364	259	71%	105	29%
2016	HIST1023	261	207	79%	54	21%
2017	HIST1023	229	194	85%	35	15%
2014	HIST2213	395	259	66%	136	34%
2015	HIST2213	343	221	64%	122	36%
2016	HIST2213	289	233	81%	56	19%
2017	HIST2213	326	232	71%	94	29%
2014	HIST2223	233	176	76%	57	24%
2015	HIST2223	398	283	71%	115	29%
2016	HIST2223	275	216	79%	59	21%
2017	HIST2223	309	249	81%	60	19%
2014	MATH1003	223	153	69%	70	31%
2015	MATH1003	301	181	60%	120	40%
2016	MATH1003	209	153	73%	56	27%
2017	MATH1003	245	171	70%	74	30%
2014	MATH1033	149	100	67%	49	33%
2015	MATH1033	119	65	55%	54	45%
2016	MATH1033	127	91	72%	36	28%
2017	MATH1033	118	75	64%	43	36%
2014	MATH1043	816	482	59%	334	41%
2015	MATH1043	899	540	60%	359	40%
2016	MATH1043	992	564	57%	428	43%
2017	MATH1043	821	495	60%	326	40%
2014	MATH1073	14	6	43%	8	57%
2015	MATH1073	9	3	33%	6	67%
2016	MATH1073	6	5	83%	1	17%
2017	MATH1073	4	3	75%	1	25%
2014	MATH2255	53	30	57%	23	43%
2015	MATH2255	67	41	61%	26	39%
2016	MATH2255	38	27	71%	11	29%
2017	MATH2255	77	47	61%	30	39%
2014	MATH3495	19	10	53%	9	47%
2015	MATH3495	9	8	89%	1	11%
2016	MATH3495	8	7	88%	1	13%
2017	MATH3495	5	5	100%	0	0%
2014	MATH3543	13	9	69%	4	31%
2015	MATH3543	7	6	86%	1	14%

2016	MATH3543	8	7	88%	1	13%
2017	MATH3543	6	4	67%	2	33%
2014	PHIL2223	55	50	91%	5	9%
2015	PHIL2223	49	43	88%	6	12%
2016	PHIL2223	51	47	92%	4	8%
2017	PHIL2223	32	25	78%	7	22%
2014	PSCI2213	423	266	63%	157	37%
2015	PSCI2213	369	262	71%	107	29%
2016	PSCI2213	253	191	75%	62	25%
2017	PSCI2213	285	210	74%	75	26%
2014	PSY1013	710	451	64%	259	36%
2015	PSY1013	560	281	50%	279	50%
2016	PSY1013	537	332	62%	205	38%
2017	PSY1013	480	319	66%	161	34%
2014	PSY3443	173	146	84%	27	16%
2015	PSY3443	106	89	84%	17	16%
2016	PSY3443	130	112	86%	18	14%
2017	PSY3443	127	91	72%	36	28%
2014	SOC2213	228	148	65%	80	35%
2015	SOC2213	170	129	76%	41	24%
2016	SOC2213	173	149	86%	24	14%
2017	SOC2213	118	112	95%	6	5%
2014	SOC2223	37	29	78%	8	22%
2015	SOC2223	25	23	92%	2	8%
2016	SOC2223	11	11	100%	0	0%

Gateway Performance by School of Math and Science Major, by Year

Year 2014

Plan	Gateway Course	Total Enrolled	Passed (A,B,C)	% Passed	Not passing(D or F)	% Not Passing
ALLIED_HTH	ENGL1013	5	4	80%	1	20%
ALLIED_HTH	ENGL1023	3	2	67%	1	33%
ALLIED_HTH	ENGL2283	3	3	100%	0	0%
ALLIED_HTH	ENGL2293	1	1	100%	0	0%
ALLIED_HTH	HIST1013	4	2	50%	2	50%
ALLIED_HTH	HIST1023	2	2	100%	0	0%
ALLIED_HTH	HIST2213	1	0	0%	1	100%
ALLIED_HTH	HIST2223	2	2	100%	0	0%
ALLIED_HTH	MATH1003	1	1	100%	0	0%
ALLIED_HTH	MATH1033	2	1	50%	1	50%

ALLIED_HTH	MATH2255	1	1	100%	0	0%
ALLIED_HTH	PHIL2223	1	1	100%	0	0%
ALLIED_HTH	PSCI2213	1	1	100%	0	0%
ALLIED_HTH	PSY1013	5	4	80%	1	20%
ALLIED_HTH	PSY3443	3	3	100%	0	0%
ALLIED_HTH	SOC2213	5	2	40%	3	60%
BIOL_MAJ	ENGL1013	6	5	83%	1	17%
BIOL_MAJ	ENGL1023	11	9	82%	2	18%
BIOL_MAJ	ENGL2283	2	2	100%	0	0%
BIOL_MAJ	HIST1013	1	1	100%	0	0%
BIOL_MAJ	HIST1023	2	1	50%	1	50%
BIOL_MAJ	MATH1003	1	1	100%	0	0%
BIOL_MAJ	MATH1033	9	7	78%	2	22%
BIOL_MAJ	MATH1073	3	1	33%	2	67%
BIOL_MAJ	MATH2255	4	4	100%	0	0%
BIOL_MAJ	PSCI2213	1	0	0%	1	100%
BIOL_MAJ	PSY1013	4	4	100%	0	0%
CHEM_MAJ	ANTH2203	1	1	100%	0	0%
CHEM_MAJ	ENGL1013	1	0	0%	1	100%
CHEM_MAJ	ENGL1023	1	1	100%	0	0%
CHEM_MAJ	ENGL2283	2	1	50%	1	50%
CHEM_MAJ	ENGL2293	3	3	100%	0	0%
CHEM_MAJ	HIST1013	2	2	100%	0	0%
CHEM_MAJ	HIST2213	2	1	50%	1	50%
CHEM_MAJ	HIST2223	1	1	100%	0	0%
CHEM_MAJ	MATH1033	4	3	75%	1	25%
CHEM_MAJ	MATH2255	4	2	50%	2	50%
CHEM_MAJ	MATH3495	3	2	67%	1	33%
CHEM_MAJ	MATH3543	2	2	100%	0	0%
CHEM_MAJ	PSCI2213	2	2	100%	0	0%
CHEM_MAJ	PSY1013	3	2	67%	1	33%
CHEM_MAJ	SOC2213	1	1	100%	0	0%
MATH_MAJ	ENGL1013	2	2	100%	0	0%
MATH_MAJ	ENGL2283	1	1	100%	0	0%
MATH_MAJ	ENGL2293	3	2	67%	1	33%
MATH_MAJ	HIST1013	2	0	0%	2	100%
MATH_MAJ	HIST1023	1	1	100%	0	0%
MATH_MAJ	HIST2213	1	0	0%	1	100%
MATH_MAJ	HIST2223	1	1	100%	0	0%
MATH_MAJ	MATH1003	1	1	100%	0	0%
MATH_MAJ	MATH1033	3	2	67%	1	33%
MATH_MAJ	MATH2255	2	1	50%	1	50%
MATH_MAJ	MATH3495	4	3	75%	1	25%

MATH_MAJ	MATH3543	4	1	25%	3	75%
MATH_MAJ	PSCI2213	1	1	100%	0	0%
MATH_MAJ	PSY1013	2	2	100%	0	0%
NAT_SC_MAJ	HIST2213	1	1	100%	0	0%
NAT_SC_MAJ	MATH1033	1	1	100%	0	0%
PRE_ENG	ENGL1013	4	3	75%	1	25%
PRE_ENG	ENGL1023	4	3	75%	1	25%
PRE_ENG	ENGL2293	2	2	100%	0	0%
PRE_ENG	HIST1023	2	2	100%	0	0%
PRE_ENG	HIST2213	2	1	50%	1	50%
PRE_ENG	HIST2223	2	1	50%	1	50%
PRE_ENG	MATH1033	3	3	100%	0	0%
PRE_ENG	MATH2255	1	1	100%	0	0%
PRE_ENG	MATH3495	2	1	50%	1	50%
PRE_ENG	MATH3543	1	1	100%	0	0%
PRE_ENG	PSY1013	3	0	0%	3	100%
PRE_MED	ENGL1013	12	8	67%	4	33%
PRE_MED	ENGL1023	7	4	57%	3	43%
PRE_MED	ENGL2283	3	3	100%	0	0%
PRE_MED	ENGL2293	3	3	100%	0	0%
PRE_MED	HIST2213	2	2	100%	0	0%
PRE_MED	HIST2223	1	0	0%	1	100%
PRE_MED	MATH1003	1	0	0%	1	100%
PRE_MED	MATH1033	6	3	50%	3	50%
PRE_MED	MATH2255	5	4	80%	1	20%
PRE_MED	PSCI2213	3	2	67%	1	33%
PRE_MED	PSY1013	15	10	67%	5	33%
PRE_MED	SOC2213	3	3	100%	0	0%
PRE_PHARM	ENGL1013	7	4	57%	3	43%
PRE_PHARM	ENGL1023	3	3	100%	0	0%
PRE_PHARM	ENGL2283	2	2	100%	0	0%
PRE_PHARM	ENGL2293	3	3	100%	0	0%
PRE_PHARM	HIST1013	1	0	0%	1	100%
PRE_PHARM	HIST1023	1	1	100%	0	0%
PRE_PHARM	HIST2213	3	2	67%	1	33%
PRE_PHARM	HIST2223	1	1	100%	0	0%
PRE_PHARM	MATH1033	5	4	80%	1	20%
PRE_PHARM	MATH2255	9	6	67%	3	33%
PRE_PHARM	PSCI2213	2	2	100%	0	0%
PRE_PHARM	PSY1013	9	7	78%	2	22%
PRE_PHARM	PSY3443	1	1	100%	0	0%

Year 2015

ALLIED_HTH	ENGL1023	1	1	100%	0	0%
ALLIED_HTH	PSCI2213	1	1	100%	0	0%
BIOL_MAJ	ENGL1013	18	14	78%	4	22%
BIOL_MAJ	ENGL1023	9	9	100%	0	0%
BIOL_MAJ	ENGL2283	4	4	100%	0	0%
BIOL_MAJ	ENGL2293	7	7	100%	0	0%
BIOL_MAJ	HIST1013	4	4	100%	0	0%
BIOL_MAJ	HIST1023	1	1	100%	0	0%
BIOL_MAJ	HIST2213	7	6	86%	1	14%
BIOL_MAJ	HIST2223	11	9	82%	2	18%
BIOL_MAJ	MATH1033	10	5	50%	5	50%
BIOL_MAJ	MATH1073	2	0	0%	2	100%
BIOL_MAJ	MATH2255	12	11	92%	1	8%
BIOL_MAJ	MATH3495	1	1	100%	0	0%
BIOL_MAJ	PHIL2223	2	2	100%	0	0%
BIOL_MAJ	PSCI2213	9	9	100%	0	0%
BIOL_MAJ	PSY1013	24	19	79%	5	21%
BIOL_MAJ	PSY3443	1	1	100%	0	0%
BIOL_MAJ	SOC2213	12	10	83%	2	17%
CHEM_MAJ	ANTH2203	1	1	100%	0	0%
CHEM_MAJ	ENGL1013	11	7	64%	4	36%
CHEM_MAJ	ENGL1023	3	3	100%	0	0%
CHEM_MAJ	ENGL2283	1	1	100%	0	0%
CHEM_MAJ	ENGL2293	1	1	100%	0	0%
CHEM_MAJ	HIST1013	5	5	100%	0	0%
CHEM_MAJ	HIST1023	3	3	100%	0	0%
CHEM_MAJ	HIST2213	1	1	100%	0	0%
CHEM_MAJ	HIST2223	3	3	100%	0	0%
CHEM_MAJ	MATH1033	4	2	50%	2	50%
CHEM_MAJ	MATH2255	6	6	100%	0	0%
CHEM_MAJ	MATH3495	2	2	100%	0	0%
CHEM_MAJ	PSCI2213	4	4	100%	0	0%
CHEM_MAJ	PSY1013	14	10	71%	4	29%
CHEM_MAJ	SOC2213	3	3	100%	0	0%
MATH_MAJ	ENGL1013	8	5	63%	3	38%
MATH_MAJ	ENGL1023	4	4	100%	0	0%
MATH_MAJ	ENGL2283	1	0	0%	1	100%
MATH_MAJ	ENGL2293	2	2	100%	0	0%
MATH_MAJ	HIST1013	1	0	0%	1	100%
MATH_MAJ	HIST1023	3	2	67%	1	33%
MATH_MAJ	HIST2213	3	3	100%	0	0%

MATH_MAJ	HIST2223	3	1	33%	2	67%
MATH_MAJ	MATH1033	6	2	33%	4	67%
MATH_MAJ	MATH2255	10	4	40%	6	60%
MATH_MAJ	MATH3495	2	2	100%	0	0%
MATH_MAJ	MATH3543	4	4	100%	0	0%
MATH_MAJ	PSCI2213	1	1	100%	0	0%
MATH_MAJ	PSY1013	5	4	80%	1	20%
NAT_SC_MAJ	ENGL1013	6	6	100%	0	0%
NAT_SC_MAJ	ENGL1023	7	2	29%	5	71%
NAT_SC_MAJ	ENGL2283	1	0	0%	1	100%
NAT_SC_MAJ	ENGL2293	3	3	100%	0	0%
NAT_SC_MAJ	ENGL3413	1	1	100%	0	0%
NAT_SC_MAJ	HIST1013	3	2	67%	1	33%
NAT_SC_MAJ	HIST1023	2	2	100%	0	0%
NAT_SC_MAJ	HIST2213	1	1	100%	0	0%
NAT_SC_MAJ	HIST2223	2	2	100%	0	0%
NAT_SC_MAJ	MATH1033	2	1	50%	1	50%
NAT_SC_MAJ	MATH2255	1	1	100%	0	0%
NAT_SC_MAJ	PHIL2223	1	1	100%	0	0%
NAT_SC_MAJ	PSCI2213	3	3	100%	0	0%
NAT_SC_MAJ	PSY1013	8	5	63%	3	38%
ND_BIOL	ENGL2293	1	1	100%	0	0%
ND_BIOL	HIST2223	1	1	100%	0	0%
PRE_MED	ENGL2293	1	1	100%	0	0%
PRE_MED	MATH1033	1	1	100%	0	0%

Year 2016

ALLIED_HTH	ENGL1023	1	1	100%	0	0%
ALLIED_HTH	PSY1013	2	1	50%	1	50%
BIOL_MAJ	ENGL1013	8	7	88%	1	13%
BIOL_MAJ	ENGL1023	9	7	78%	2	22%
BIOL_MAJ	ENGL2283	3	3	100%	0	0%
BIOL_MAJ	ENGL2293	10	9	90%	1	10%
BIOL_MAJ	HIST1013	2	2	100%	0	0%
BIOL_MAJ	HIST1023	2	2	100%	0	0%
BIOL_MAJ	HIST2213	1	0	0%	1	100%
BIOL_MAJ	HIST2223	5	5	100%	0	0%
BIOL_MAJ	MATH1003	1	0	0%	1	100%
BIOL_MAJ	MATH1033	5	4	80%	1	20%
BIOL_MAJ	MATH1073	1	1	100%	0	0%

BIOL_MAJ	MATH2255	7	6	86%	1	14%
BIOL_MAJ	PSCI2213	3	3	100%	0	0%
BIOL_MAJ	PSY1013	8	8	100%	0	0%
BIOL_MAJ	PSY3443	2	2	100%	0	0%
BIOL_MAJ	SOC2213	5	5	100%	0	0%
CHEM_MAJ	ENGL1013	3	3	100%	0	0%
CHEM_MAJ	ENGL1023	4	3	75%	1	25%
CHEM_MAJ	ENGL2283	4	3	75%	1	25%
CHEM_MAJ	ENGL2293	1	1	100%	0	0%
CHEM_MAJ	HIST2213	3	3	100%	0	0%
CHEM_MAJ	MATH1033	5	5	100%	0	0%
CHEM_MAJ	MATH2255	3	2	67%	1	33%
CHEM_MAJ	MATH3543	1	1	100%	0	0%
CHEM_MAJ	PHIL2223	1	1	100%	0	0%
CHEM_MAJ	PSCI2213	1	0	0%	1	100%
CHEM_MAJ	PSY1013	3	3	100%	0	0%
CHEM_MAJ	SOC2213	4	4	100%	0	0%
MATH_MAJ	ENGL1013	1	1	100%	0	0%
MATH_MAJ	ENGL1023	2	1	50%	1	50%
MATH_MAJ	ENGL2293	3	3	100%	0	0%
MATH_MAJ	HIST1023	1	1	100%	0	0%
MATH_MAJ	MATH1003	1	1	100%	0	0%
MATH_MAJ	MATH1033	2	0	0%	2	100%
MATH_MAJ	MATH2255	6	3	50%	3	50%
MATH_MAJ	MATH3495	2	2	100%	0	0%
MATH_MAJ	MATH3543	1	1	100%	0	0%
MATH_MAJ	PSCI2213	1	1	100%	0	0%
MATH_MAJ	PSY1013	3	2	67%	1	33%
NAT_SC_MAJ	ANTH2203	1	1	100%	0	0%
NAT_SC_MAJ	ENGL1013	3	2	67%	1	33%
NAT_SC_MAJ	ENGL1023	2	1	50%	1	50%
NAT_SC_MAJ	ENGL2283	1	1	100%	0	0%
NAT_SC_MAJ	ENGL2293	1	1	100%	0	0%
NAT_SC_MAJ	ENGL3423	1	1	100%	0	0%
NAT_SC_MAJ	HIST1013	1	1	100%	0	0%
NAT_SC_MAJ	HIST1023	4	4	100%	0	0%
NAT_SC_MAJ	HIST2223	1	1	100%	0	0%
NAT_SC_MAJ	MATH1003	1	1	100%	0	0%
NAT_SC_MAJ	MATH1033	1	1	100%	0	0%
NAT_SC_MAJ	PSCI2213	1	1	100%	0	0%
NAT_SC_MAJ	PSY1013	2	1	50%	1	50%
NAT_SC_MAJ	SOC2213	4	4	100%	0	0%
PRE_ENG	ENGL1013	2	1	50%	1	50%

PRE_ENG	MATH2255	1	0	0%	1	100%
PRE_PHARM	ENGL1013	1	0	0%	1	100%
PRE_PHARM	HIST2223	1	0	0%	1	100%

Year 2017

ALLIED_HTH	ENGL2293	1	1	100%	0	0%
ALLIED_HTH	PSCI2213	1	1	100%	0	0%
BIOL_MAJ	ENGL1013	17	13	76%	4	24%
BIOL_MAJ	ENGL1023	9	7	78%	2	22%
BIOL_MAJ	ENGL2283	3	3	100%	0	0%
BIOL_MAJ	ENGL2293	7	6	86%	1	14%
BIOL_MAJ	HIST1013	2	2	100%	0	0%
BIOL_MAJ	HIST1023	1	1	100%	0	0%
BIOL_MAJ	HIST2213	5	5	100%	0	0%
BIOL_MAJ	HIST2223	2	2	100%	0	0%
BIOL_MAJ	MATH1033	6	6	100%	0	0%
BIOL_MAJ	MATH1073	1	1	100%	0	0%
BIOL_MAJ	MATH2255	10	9	90%	1	10%
BIOL_MAJ	PSCI2213	3	3	100%	0	0%
BIOL_MAJ	PSY1013	15	15	100%	0	0%
BIOL_MAJ	PSY3443	2	1	50%	1	50%
BIOL_MAJ	SOC2213	8	8	100%	0	0%
CHEM_MAJ	ENGL1013	7	6	86%	1	14%
CHEM_MAJ	ENGL1023	9	7	78%	2	22%
CHEM_MAJ	ENGL2293	1	1	100%	0	0%
CHEM_MAJ	HIST2213	2	2	100%	0	0%
CHEM_MAJ	HIST2223	1	1	100%	0	0%
CHEM_MAJ	MATH1033	5	4	80%	1	20%
CHEM_MAJ	MATH2255	10	9	90%	1	10%
CHEM_MAJ	PSCI2213	2	1	50%	1	50%
CHEM_MAJ	PSY1013	5	5	100%	0	0%
CHEM_MAJ	SOC2213	1	1	100%	0	0%
CHEM_MIN	HIST2223	1	1	100%	0	0%
CHEM_MIN	MATH1033	1	1	100%	0	0%
MATH_MAJ	ANTH2203	1	1	100%	0	0%
MATH_MAJ	ENGL1013	5	4	80%	1	20%
MATH_MAJ	ENGL1023	9	6	67%	3	33%
MATH_MAJ	HIST1013	1	0	0%	1	100%
MATH_MAJ	HIST2213	1	0	0%	1	100%
MATH_MAJ	HIST2223	1	1	100%	0	0%
MATH_MAJ	MATH1033	7	3	43%	4	57%
MATH_MAJ	MATH2255	5	2	40%	3	60%

MATH_MAJ	MATH3495	1	1	100%	0	0%
MATH_MAJ	MATH3543	1	0	0%	1	100%
MATH_MAJ	PHIL2223	2	1	50%	1	50%
MATH_MAJ	PSCI2213	2	2	100%	0	0%
MATH_MAJ	PSY1013	7	4	57%	3	43%
MATH_MAJ	SOC2213	2	2	100%	0	0%
NAT_SC_MAJ	ENGL1013	10	9	90%	1	10%
NAT_SC_MAJ	ENGL1023	8	4	50%	4	50%
NAT_SC_MAJ	ENGL2283	1	1	100%	0	0%
NAT_SC_MAJ	ENGL2293	2	2	100%	0	0%
NAT_SC_MAJ	HIST1013	1	1	100%	0	0%
NAT_SC_MAJ	HIST1023	1	1	100%	0	0%
NAT_SC_MAJ	HIST2213	3	1	33%	2	67%
NAT_SC_MAJ	HIST2223	3	3	100%	0	0%
NAT_SC_MAJ	MATH1033	3	3	100%	0	0%
NAT_SC_MAJ	MATH2255	4	2	50%	2	50%
NAT_SC_MAJ	PSCI2213	4	3	75%	1	25%
NAT_SC_MAJ	PSY1013	10	9	90%	1	10%
NAT_SC_MAJ	PSY3443	2	2	100%	0	0%
NAT_SC_MAJ	SOC2213	2	2	100%	0	0%
PRE_ENG	ENGL1013	2	1	50%	1	50%
PRE_ENG	HIST1013	1	1	100%	0	0%
PRE_MED	ENGL1013	1	0	0%	1	100%
PRE_MED	ENGL1023	2	2	100%	0	0%
PRE_MED	MATH2255	1	1	100%	0	0%
PRE_PHARM	HIST1023	1	0	0%	1	100%
PRE_PHARM	MATH2255	1	1	100%	0	0%
PRE_PHARM	PSCI2213	1	1	100%	0	0%

- Completion Success: Data on graduation rates (number and percentage) for each major in unit

2016 Cohort									
MATHS First Time Freshman	Number of Declared Majors	Left Univ.	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2016	35	6	17	5	14	0		24	69
Spring 2017	24	24	100	0		0		0	
Started with MATHS- Graduated with degree in MATHS								0	
Started with MATHS- Left UAM								30	
Started with MATHS- Changed Majors								5	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								0	
Total number graduated in MATHS(stayed or changed major)								0	

2016 Cohort MATHS Transfers	Number of Declared Majors	Left	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2016	8	0		1	13%	0		7	88%
Spring 2017	7	6	86%	0		1	14%	0	
Fall 2017	0	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								1	
Started with MATHS- Left UAM								6	
Started with MATHS- Changed Majors								1	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								0	
Total number graduated in MATHS(stayed or changed major)								1	

_2015 Cohort									
MATHS First Time Freshman	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2015	48	10	21	7	15	0		31	65
Spring 2016	31	7	23	3	1	0		21	68
Fall 2016	21	1	05	3	14	0		17	81
Spring 2017	17	17	1	0		0		0	
Started with MATHS- Graduated with degree in MATHS								0	
Started with MATHS- Left UAM								35	
Started with MATHS- Changed Majors								13	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								0	
Total number graduated in MATHS(stayed or changed major)								0	

2015 MATHS Transfers	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2015	11	2	18%	1	9%	0		8	73%
Spring 2016	8	2	25%	3	38%	0		3	38%
Fall 2016	3	1	33%	0		0		2	67%
Spring 2017	2	2	100%	0		0		0	
Fall 2017	0	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								0	
Started with MATHS- Left UAM								7	
Started with MATHS- Changed Majors								4	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								0	
Total number graduated in MATHS(stayed or changed major)								0	

2014 Cohort									
MATHS First Time Freshman	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2014	55	8	15	8	15	0		39	71
Spring 2015	39	13	33	5	13	0		21	54
Fall 2015	21	0		1	5	0		20	95
Spring 2016	20	6	30	1	5	0		13	65
Fall 2016	13	1	8	0		0		12	92
Spring 2017	12	12	100	0		0		0	
Started with MATHS- Graduated with degree in MATHS								0	
Started with MATHS- Left UAM								40	
Started with MATHS- Changed Majors								15	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								0	
Total number graduated in MATHS(stayed or changed major)								0	

2014 MATHS Transfers	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2014	10	5	50%	0		0		5	50%
Spring 2015	5	2	40%	0		0		3	60%
Fall 2015	3	1	33%	0		0		2	67%
Spring 2016	2	0		1	50%	0		1	50%
Fall 2016	1	0		0		0		1	100%
Spring 2017	1	0		0		1	100%	0	
Started with MATHS- Graduated with degree in MATHS								1	
Started with MATHS- Left UAM								8	
Started with MATHS- Changed Majors								1	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								1	
Total number graduated in MATHS(stayed or changed major)								2	

2013 Cohort									
MATHS First Time Freshman	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2013	40	7	18	4	10	0		29	73
Spring 2014	29	8	28	1	3	0		20	69
Fall 2014	20	5	25	0		0		15	75
Spring 2015	15	2	13	1	7	0		12	8
Fall 2015	12	0		0		0		12	100
Spring 2016	12	0		0		0		12	100
Fall 2016	12	0		0		0		12	100
Spring 2017	12	6	5	0		6	5	0	
Started with MATHS- Graduated with degree in MATHS								6	
Started with MATHS- Left UAM								28	
Started with MATHS- Changed Majors								6	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								3	
Total number graduated in MATHS(stayed or changed major)								9	

_2013 MATHS Transfers	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2013	6	1	17%	0		0		5	83%
Spring 2014	5	2	40%	0		0		3	60%
Fall 2014	3	1	33%	0		0		2	67%
Spring 2015	2	0		0		0		2	100%
Fall 2015	2	1	50%	0		0		1	50%
Spring 2016	1	0		0		1	100%	0	
Fall 2016	0	0		0		0		0	
Spring 2017	0	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								3	
Started with MATHS- Left UAM								5	
Started with MATHS- Changed Majors								0	
Started with MATHS- graduated with degree NOT in MATHS								0	
Did not start with MATHS- graduated with degree in MATHS								1	
Total number graduated in MATHS(stayed or changed major)								4	

2012 Cohort									
MATHS First Time Freshman	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2012	61	6	10%	9	15%	0		46	75%
Spring 2013	46	19	41%	5	11%	0		22	48%
Fall 2013	22	2	9%	2	9%	0		18	82%
Spring 2014	18	4	22%	4	22%	0		10	56%
Fall 2014	10	2	20%	1	10%	0		7	70%
Spring 2015	7	1	14%	1	14%	1	14%	4	57%
Fall 2015	4	0		0		0		4	100%
Spring 2016	4	1	25%	0		3	75%	0	
Fall 2016	0	0		0		0		0	
Spring 2017	0	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								5	
Started with MATHS- Left UAM								35	
Started with MATHS- Changed Majors								22	
Started with MATHS- graduated with degree NOT in MATHS								9	
Did not start with MATHS- graduated with degree in MATHS								1	
Total number graduated in MATHS(stayed or changed major)								6	

2012 MATHS Transfers	Number of Declared Majors	Left Univ	% Left	Changed Major	% Change d Major	Grad	% Grad	Returned in Major	% Returned
Fall 2012	10	1	10%	1	10%	0		8	80%
Spring 2013	8	3	38%	1	13%	0		4	50%
Fall 2013	4	0		0		0		4	100%
Spring 2014	4	1	25%	1	25%	0		2	50%
Fall 2014	2	2	100%	0		0		0	
Spring 2015	0	0		0		0		0	
Fall 2015	0	0		0		0		0	
Spring 2016	0	0		0		0		0	
Fall 2016	0	0		0		0		0	
Spring 2017	0	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								1	
Started with MATHS- Left UAM								7	
Started with MATHS- Changed Majors								3	
Started with MATHS- graduated with degree NOT in MATHS								3	
Did not start with MATHS- graduated with degree in MATHS								0	
Total number graduated in MATHS(stayed or changed major)								1	

2011 Cohort									
MATHS First Time Freshman	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2011	50	14	28%	6	12%	0		30	0.6
Spring 2012	30	9	30%	4	13%	0		17	0.57
Fall 2012	17	1	6%	0		0		16	0.94
Spring 2013	16	2	13%	1	6%	0		13	0.81
Fall 2013	13	0		0		0		13	1
Spring 2014	13	3	23%	0		1	8%	9	0.69
Fall 2014	9	0		0		0		9	1
Spring 2015	9	2	22%	0		2	22%	4	0.44
Fall 2015	4	1	25%	0		1	25%	2	0.5
Spring 2016	2	1	50%	0		0		1	0.5
Fall 2016	1	0		0		0		1	1
Spring 2017	1	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								8	
Started with MATHS- Left UAM								33	
Started with MATHS- Changed Majors								11	
Started with MATHS- graduated with degree NOT in MATHS								5	
Did not start with MATHS- graduated with degree in MATHS								3	
Total number graduated in MATHS(stayed or changed major)								11	

2011 MATHS Transfers	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2011	10	1	10%	2	20%	0		7	70%
Spring 2012	7	0		1	14%	0		6	86%
Fall 2012	6	1	17%	0		0		5	83%
Spring 2013	5	1	20%	0		0		4	80%
Fall 2013	4	1	25%	0		0		3	75%
Spring 2014	3	0		0		1	33%	2	67%
Fall 2014	2	1	50%	0		0		1	50%
Spring 2015	1	0		0		0		1	100%
Fall 2015	1	1	100%	0		0		0	
Spring 2016	0	0		0		0		0	
Fall 2016	0	0		0		0		0	
Spring 2017	0	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								2	
Started with MATHS- Left UAM								6	
Started with MATHS- Changed Majors								3	
Started with MATHS- graduated with degree NOT in MATHS								2	
Did not start with MATHS- graduated with degree in MATHS								3	
Total number graduated in MATHS(stayed or changed major)								5	

2010 Cohort									
MATHS First Time Freshman	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2010	52	15	29%	5	10%	0		32	62%
Spring 2011	32	15	47%	2	6%	0		15	47%
Fall 2011	15	0		0		0		15	100%
Spring 2012	15	0		3	20%	0		12	80%
Fall 2012	12	1	8%	2	17%	0		9	75%
Spring 2013	9	3	33%	1	11%	0		5	56%
Fall 2013	5	1	20%	0		0		4	80%
Spring 2014	4	2	50%	0		1	25%	1	25%
Fall 2014	1	0		0		0		1	100%
Spring 2015	1	0		0		0		1	100%
Fall 2015	1	0		0		0		1	100%
Spring 2016	1	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								4	

Started with MATHS- Left UAM	37	
Started with MATHS- Changed Majors	13	
Started with MATHS- graduated with degree NOT in MATHS	6	
Did not start with MATHS- graduated with degree in MATHS	4	
Total number graduated in MATHS(stayed or changed major)	8	

2010 MATHS Transfers	Number of Declared Majors	Left Univ	% Left	Changed Major	% Changed Major	Grad	% Grad	Returned in Major	% Returned
Fall 2010	15	3	20%	2	13%	0		10	67%
Spring 2011	10	4	40%	1	10%	0		5	50%
Fall 2011	5	1	20%	1	20%	0		3	60%
Spring 2012	3	0		1	33%	0		2	67%
Fall 2012	2	0		0		0		2	100%
Spring 2013	2	0		0		1	50%	1	50%
Fall 2013	1	0		0		1	100%	0	
Spring 2014	0	0		0		0		0	
Fall 2014	0	0		0		0		0	
Spring 2015	0	0		0		0		0	
Fall 2015	0	0		0		0		0	
Spring 2016	0	0		0		0		0	
Started with MATHS- Graduated with degree in MATHS								3	
Started with MATHS- Left UAM								8	
Started with MATHS- Changed Majors								5	
Started with MATHS- graduated with degree NOT in MATHS								4	
Did not start with MATHS- graduated with degree in MATHS								1	
Total number graduated in MATHS(stayed or changed major)								4	

➤ Students changing majors in unit

From the tables above, it appears that it is common for approximately 15% of the incoming majors to change their major within the first year. I suspect many of these are not actual changes, but corrections. It seems we are constantly correcting students majors that are simply not put into the system correctly. Just this week, I learned that I must put in an advisor for each major listed, even if it is the same advisor. For instance, I am to put in a faculty name for each of the biology major, the chemistry major, and a pre-pharmacy major, even if it is the

same faculty member. Without that, the system doesn't recognize the three majors on some data inquiries.

- **Affordability:** An average of the number of students who graduated within the recommended timeframe for the Certificate of Proficiency, Technical Certificate, Associate and Bachelor's degrees over the most recent three years.

Report in number and percentages for most recent three years and the average.

➤ Credits at Completion:

Completed on Schedule: (60 associate or 120 credit hours undergraduate)

In 2017, two out of 19 biology majors finished at exactly 120 hours. The table below shows the numbers for those completing their degree in fiscal year 2017, as well as previous years, for comparison. Many of the students taking more than 120 hours are doing so by choice; however, many are still finishing within 4 years.

**Affordability
Credits at Completion
Academic Year 2017**

Degree	Academic Plan	Hours Completed	Count	Percentage
BS	BIOL_MAJ	120	2	10.53%
BS	BIOL_MAJ	>150	3	15.79%
BS	BIOL_MAJ	120-132	4	21.05%
BS	BIOL_MAJ	133-150	10	52.63%
BS	CHEM_MAJ	>150	3	23.08%
BS	CHEM_MAJ	120-132	2	15.38%
BS	CHEM_MAJ	133-150	8	61.54%
BS	NAT_SC_MAJ	133-150	6	100.00%

**Affordability
Credits at Completion
Academic Year 2016**

Degree	Academic Plan	Hours Completed	Count	Percentage
BS	BIOL_MAJ	>150	4	23.53%
BS	BIOL_MAJ	120-132	7	41.18%
BS	BIOL_MAJ	133-150	6	35.29%
BS	CHEM_MAJ	>150	2	16.67%
BS	CHEM_MAJ	120-132	5	41.67%
BS	CHEM_MAJ	133-150	5	41.67%
BS	MATH_MAJ	120	2	25.00%
BS	MATH_MAJ	>150	1	12.50%
BS	MATH_MAJ	120-132	4	50.00%
BS	MATH_MAJ	133-150	1	12.50%
BS	NAT_SC_MAJ	120	1	25.00%
BS	NAT_SC_MAJ	>150	1	25.00%
BS	NAT_SC_MAJ	133-150	2	50.00%

**Affordability
Credits at Completion
Academic Year 2015**

Degree	Academic Plan	Hours Completed	Count	Percentage
BS	BIOL_MAJ	120-132	4	57.14%
BS	BIOL_MAJ	>150	3	42.86%
BS	CHEM_MAJ	120-132	6	50.00%
BS	CHEM_MAJ	133-150	3	25.00%
BS	CHEM_MAJ	>150	3	25.00%
BS	MATH_MAJ	120-132	2	50.00%
BS	MATH_MAJ	>150	2	50.00%
BS	NAT_SC_MAJ	120-132	1	25.00%
BS	NAT_SC_MAJ	133-150	3	75.00%

**Affordability
Credits at Completion
Academic Year 2014**

Degree	Academic Plan	Hours Completed	Count	Percentage
BS	BIOL_MAJ	120	1	6.25%
BS	BIOL_MAJ	120-132	2	12.50%
BS	BIOL_MAJ	133-150	8	50.00%
BS	BIOL_MAJ	>150	5	31.25%
BS	CHEM_MAJ	120-132	1	9.09%
BS	CHEM_MAJ	133-150	6	54.55%
BS	CHEM_MAJ	>150	4	36.36%
BS	MATH_MAJ	120-132	2	66.67%
BS	MATH_MAJ	>150	1	33.33%
BS	NAT_SC_MAJ	133-150	3	75.00%
BS	NAT_SC_MAJ	>150	1	25.00%

Completed on Schedule + 10%: (61-66 or 121-132)

In 2017, 4 (21.05%) of the Biology majors, 2 (15.38%) of the Chemistry majors finished in 120 hours +10%.

Completed on Schedule + 25%: (67-75 or 133-150)

For 2017, 10 (52.63%) of the Biology majors, 8 (61.54%) and all 6 (100%) of the Natural Science majors finished in the 120 hours +25% group. Many of the majors came to UAM with a fairly large number of hours; however, continued to take 15-18 hours per term while here. While they were not required, they were important classes in terms of future success in professional programs. The additional courses were taken entirely by student choice. This did not delay time to graduation. This can be seen in the table below that indicates in 2017, 14 of 17 graduates that came to UAM as first time, full time freshmen completed their degree "on time" or in the 48 month period allowed.

- Time to Degree: IPEDS definition of First Time/Full Time Degree Seeking
On Time: (24 or 48 months)

The table below reflects that data provided by the University. I am certain that this data is incorrect. I do not have the time nor the energy at this point to go through each student individually to give correct numbers. I can say with confidence that in 2017 more than 4 chemistry majors finished in exactly four years. I suspect that double majors are not being run properly, and I am certain

that students that transfer credit hours back from professional school are not being considered.

YEAR	ACAD_PROG	ACAD_PLAN	DEGREE	On Time	On Time + 25%	On-Time + 50%	Over
2015	MATHS	BIOL_MAJ	BS	3	2	0	0
		CHEM_MAJ	BS	6	1	0	0
		MATH_MAJ	BS	1	0	0	0
		NAT_SC_MAJ	BS	0	0	0	0
2016	MATHS	BIOL_MAJ	BS	2	0	0	0
		CHEM_MAJ	BS	2	0	0	0
		MATH_MAJ	BS	2	1	0	0
		NAT_SC_MAJ	BS	0	2	0	0
2017	MATHS	BIOL_MAJ	BS	7	0	2	0
		CHEM_MAJ	BS	4	0	0	1
		MATH_MAJ	BS	0	0	0	0
		NAT_SC_MAJ	BS	2	0	0	0

On Time + 25%: (25-30 or 49 – 60 months)

See table above

On Time + 50%: (31 – 36 or 61 – 72 months)

See table above

- **Graduates**

- Special honors/recognitions of graduates/alumni

Of the 2017 Math and Science graduates, 10 graduated with honors. Three graduated Summa Cum Laude (greater than 3.9), 4 graduated Magna Cum Laude (above 3.70), and 3 were Cum Laude (above 3.50). See table below.

- Available data on employability

Of the 29 students graduating with a total of 38 degrees, 13 are accepted into a professional program, and 4 are accepted into a graduate program. Three of the 4 accepted into a graduate program are entering the MAT program. Two students have found employment in the private sector, and one in a governmental position. Seven students are currently applying for positions in professional programs, or in the private sector. One is unknown. See table below

➤ Available data on enrollment in graduate programs

Seventeen of the 29 graduates have entered a professional program or a graduate program. Four other students received early admission into professional programs. See the table below for details. The code for honor graduates is:

SCL = Summa Cum Laude

MCL = Magna Cum Laude

CL = Cum Laude

Graduates	Honor	Date	Major 1	Major 2	Minor	Initial Placement
1	SCL	5/17	CHEM (BIO)	BIOL		Southern College of Optometry
2		5/17	CHEM (BIO)	BIOL		Accepted: UAMS Cytotechnology Program, DNA
3		5/17	CHEM (BIO)	BIOL		Logan Chiropractic College
4		5/17	BIOL		BUS	Applying to Dental Hygiene
5		5/17	NAT SCI (L)			UAMS College of Pharmacy
6		5/17	CHEM (BIO)	BIOL		Univ. of Arkansas Grad Program -Biology (PhD)
7	CL	5/17	CHEM (BIO)	BIOL		UAMS College of Medicine
8		5/17	BIOL		NAT S	Applying for Teaching Positions
9		5/17	NAT SCI (L)			Applying to Radiation Therapy
10	CL	5/17	CHEM (BIO)	BIOL		Southern College of Optometry
11		5/17	NAT SCI (L)		CIS	Merchants & Planters Insurance Sales
12		5/17	CHEM (BIO)	BIOL		UAMS College of Pharmacy
13	MCL	5/17	NAT SCI (L)			Applying for Physician Asst Programs
14		5/17	BIOL		NAT S	MAT Program, teaching Jr. High Science at Hope, AR
15		5/17	BIOL		CHEM	City Office of Little Rock
16		5/17	BIOL			Teaching Asst at Pre-School in TX. Continuing toward certification
17		5/17	CHEM (BIO)	BIOL		Medic at Clearwater Paper and applying to medical school
18	MCL	5/17	CHEM (BIO)		BIOL	Diagnostic Sonography at RIT- New York
19		5/17	BIOL (ORG)			MAT Program -Teaching Science in Texarkana area school
20		5/17	NAT SCI (L)			Applying for position in a health clinic

Graduates	Honor	Date	Major 1	Major 2	Minor	Initial Placement
21		5/17	BIOL		CHEM	Applying to MAT Program
22	MCL	5/17	NAT SCI (L)			Physical Therapy -Ark. State Univ.
23	SCL	5/17	CHEM (BIO)	BIOL		Cancer Res. Center, Nat. Inst. For Health
24		5/17	NAT SCI (L)			Applying to Allied Health Programs
25	MCL	12/16	CHEM (BIO)			Univ. of Texas College of Pharmacy
26		12/16	BIOL (ORG)			Agricultural Chemical Supply Sales
27		8/16	BIOL		CHEM	Unknown
28	SCL	8/16	CHEM (BIO)			UAMS College of Pharmacy
29	CL	8/16	CHEM (BIO)			UAMS College of Pharmacy
Non-graduate early admissions						
1			CHEM (BIO)	BIOL		UAMS College of Pharmacy
2			CHEM (BIO)	BIOL		UAMS College of Pharmacy
3 grad fall 2018			CHEM (BIO)	BIOL		Harding Univ. College of Pharmacy
4 graduated 2018			BIOL			Accepted: UAMS Medical Lab. Tech. Program, DNA

Enrollment/Program Viability

- Student semester credit hour (SSCH) by terms/by faculty including adjuncts and part-time

Name	Workload Summer II 2016	SSCH Summer II 2016	Workload Fall 2016	SSCH Fall 2016	Workload Spring 2017	SSCH Spring 2017	Workload Summer I 2017	SSCH Summer I 2017	Faculty Workload Totals	Faculty SSCH Totals
Fox,Victoria L	3.00	60.00	14.00	361.00	12.00	234.00	6.00	111.00	35.00	766.00
Hatfield,Susan E			6.00	114.00	7.00	190.00	4.00	44.00	17.00	348.00
Smith,Constance S			9.00	174.00	9.00	144.00			18.00	318.00
Martin,Elizabeth C			12.00	312.00	9.00	63.00			21.00	375.00
Sayyar,Hassan	6.00	39.00	15.00	351.00	12.00	264.00			33.00	654.00
Snyder,David G			15.00	444.00	15.00	279.00			30.00	723.00
Leek,Laura L	3.00	18.00	6.00	57.00	3.00	39.00			12.00	114.00

Name	Workload Summer II 2016	SSCH Summer II 2016	Workload Fall 2016	SSCH Fall 2016	Workload Spring 2017	SSCH Spring 2017	Workload Summer I 2017	SSCH Summer I 2017	Faculty Workload Totals	Faculty SSCH Totals
Morgan,Lauren	1.00	7.00	5.00	109.00	4.00	71.00			10.00	187.00
West,Haley K	6.00	18.00							6.00	18.00
Sandlin,Lura E					3.00	45.00			3.00	45.00
Cobb,Katherine D	4.00	113.00	9.00	216.00	10.00	295.00	4.00	95.00	27.00	719.00
Ross,Shelvia J			11.00	135.00	9.00	93.00			20.00	228.00
Gorman,Regina L			45.00	303.00	45.00	171.00			90.00	474.00
Gavin,Jared M			15.00	429.00	13.00	208.00			28.00	637.00
Jones,Elizabeth M			9.00	75.00	9.00	90.00			18.00	165.00
Chappell,Jessie E	1.00	7.00	7.00	167.00	7.00	182.00	2.00	14.00	17.00	370.00
Bacon,Edmond J	3.00	6.00	10.00	328.00	10.00	193.00			23.00	527.00
Huang,Jinming					12.00	210.00	4.00	42.00	16.00	252.00
Dolberry,Charles L			15.00	369.00	12.00	141.00			27.00	510.00
Fawley,Karen P			8.00	250.00	11.00	177.00			19.00	427.00
Taylor,M. J	4.00	52.00	8.00	262.00	11.00	192.00	4.00	68.00	27.00	574.00
Stewart,Mary J			11.00	361.00	11.00	197.00			22.00	558.00
Sayyar,Kelley L	4.00	48.00	17.00	448.00	13.00	433.00			34.00	929.00
Hunt,John L	6.00	45.00	11.00	286.00	12.00	524.00			29.00	855.00
Fawley,Marvin W					1.00	4.00			1.00	4.00
Sims,Christopher G			11.00	410.00	15.00	213.00	3.00	36.00	29.00	659.00
Bramlett,Joseph M			9.00	330.00					9.00	330.00
Manning,Glenn J			8.00	281.00	11.00	251.00	3.00	18.00	22.00	550.00
Abedi,Farrokh			9.00	50.00	12.00	308.00	9.00	30.00	30.00	388.00
Williams,Andrew L	4.00	29.00	13.00	210.00	15.00	527.00			32.00	766.00
Belvin,Rebecca			39.00	249.00	36.00	261.00			75.00	510.00
Barton,Laura J			18.00	474.00	15.00	342.00	6.00	36.00	39.00	852.00
Bridgforth,Cherie			9.00	141.00	9.00	120.00			18.00	261.00
Burrows,Ross			6.00	184.00	9.00	144.00			15.00	328.00
Grilliot,Matthew			4.00	79.00	4.00	70.00			8.00	149.00

➤ Identify potential program growth areas and plans for implementation

Chemistry- In the past few years, there has been nice growth in Chemistry. Less than ten years ago, the Chemistry major was very near the program viability threshold. In order to increase the number of graduates, the Biochemistry Option of the Chemistry degree was developed. It was designed with numerous biology courses as supportive requirements in hopes that the biology student would opt for the double major since the number of additional hours needed would be very small. It worked even better than expected, and since that time the number of chemistry majors has nearly tripled. Most of the growth is due to the growth of the pre-professional programs. Essentially all pre-med, pre-pharm, pre-dentistry,

and pre-optometry students do the Biology/Biochemistry double major. As we are very successful in getting students into these programs, this major is becoming more popular. Some courses are growing to the point of needing additional course offerings in the near future. The physical limitations of the building and faculty teaching loads make it difficult to offer additional labs for some courses. At least one position in chemistry will be needed in the near future. Organic chem is essentially overfilled at 44 enrolled, despite the fact that 17 enrolled in the course this summer. The two sections of lab are at 22 students each, even though realistically 18 student should be the maximum in each lab. The General Chemistry I fall sections have over 100 student enrolled. The two lectures of 53 or so students is the maximum for the room. The three labs with approximately 35 enrolled are about 5 students over what there should be in each lab. Many universities limit lab sizes to 24 students for a single lab instructor.

Mathematics- The Mathematics major is very near the program viability threshold. We are currently looking for ways to increase enrollment in that major, and developing new mathematics options are being considered, such as the Mathematics/Engineering Option. The Mathematics/Engineering Option would focus on applied mathematics courses and include courses that are important to basic engineering. Currently we are limited on pre-engineering courses; however, we are addressing that problem. This year, Introduction to Robotics and Basic Engineering was added. In the future, additional engineering related courses will be offered, either as Engineering (ENGR) or possibly Physics (PHYS) courses. Each year at preview days, we get numerous requests about engineering degrees. While we offer some pre-engineering courses, that option isn't very appealing to most. It would be very expensive to add the faculty and facilities needed to offer an engineering degree; however, if we offer additional courses applied courses in mathematics and physics we could put together a much more viable degree in either mathematics or natural sciences that would attract many that would be interested in engineering. We've recently taken steps that will allow the offering of University Physics. As popularity continues to grow, more upper level physics courses will be offered. With Dr. Ross Burrows serving as our primary physicist, and Dr. Jared Gavin having a doctorate in Physics, we have the faculty to build this program at this time.

Allied Health- While Allied Health is not a degree program, but more often a program that often leads to transfer it is still important to the University. We are currently reorganizing the academic advising for the Allied Health majors. We currently have three faculty that handles the advising for those students. We are now assigning them to specific advisors, depending on which allied health program they are planning to attend. This will allow the advisors to better assembly information for the specific program requirements. Currently the biggest problem is getting appropriate information from the students. We are addressing different methods of collecting information so that we can better serve

the students. We are even considered the development of an allied health associates degree that would include the prerequisites for most allied health programs.

- Number of majors/minors by discipline and classification individually for past 3 years and as a rolling average

The table below shows the number of majors per discipline over the past 5 years. The 2011 and 2012 numbers were included for comparison and trend observation. While the numbers are official, the accuracy is not very good. There a large number of students in Math and Sciences that are double majors, or even triple majors. We have numerous students that are Biology/Biochem double majors and are planning on going to medical, pharmacy, optometry, or dental school. So, it is possible for students to be listed as all three. Some are officially listed as all three, others are listed as only two, and some may only be listed as one of the three as a single major. Efforts are being made to correct the way students are listed; however, it often stems from the way students fill out the initial application to the University. In 2014, federal financial aid laws changed such that no aid was available for students not in an actual degree program. Programs such as Allied Health do not necessarily lead to a BS or BA degree, so those students would not qualify for financial aid. So during that time, those students were registered as Natural Science majors. This explains the zero majors for those years in Allied Health and also the growth in the number of Natural Science majors. Pre-Pharmacy and Pre-Medicine students also faced this dilemma; however, more of those students were successfully listed as double majors. It is still near impossible to say specifically how many biology, chemistry pre-med or pre-pharmacy students we have at a given time.

Majors Year	2011	2012	2013	2014	2015	2016	3 year avg
Allied Health							
Freshman	29	30	16	0	0	9	3
Sophomore	12	11	9	0	0	2	.67
Junior	5	6	3	0	0	1	.33
Senior	1	2	1	0	0	1	.33
Pre-Fresh							
Special*							
Post -Bach							
Total	47	49	29	0	0	13	4.33

Majors Year	2011	2012	2013	2014	2015	2016	3 year avg
Biology							
Freshman	10	16	16	29	19	31	26.33
Sophomore	3	10	5	8	16	10	11.33
Junior	9	6	11	5	6	19	10
Senior	20	16	10	18	12	16	15.33
Pre-Fresh							
Special*							
Post Bach		1	1			1	.33
Total	42	49	43	60	53	77	63.3
Chemistry							
Freshman	3	6	10	13	3	14	10
Sophomore	3	4	4	5	3	8	7
Junior	3	4	7	4	7	5	5.33
Senior	5	4	4	6	6	4	5.33
Pre-Fres							
Special*							
Post Bach							
Total	14	18	25	28	19	31	26
Mathematics							
Freshman	9	8	6	8	5	8	7
Sophomore	3	5	2	2	2	6	3.33
Junior	4	3	9	4	3	2	3
Senior	5	3	4	3	6	1	3.33
Pre-Fresh							
Special*							
Post Bach	1						
Total	22	19	21	17	16	17	16.67
Natural Science							
Freshman	2	0	1	14	19	10	14.33
Sophomore	2	2		9	4	4	5.67
Junior	4	3	2	7	5	6	6
Senior	4	3	5	6	5	6	5.67
Pre-Freshman							
Special*							
Post Bachelor							
Total	12	8	8	36	33	26	31.67

Majors Year	2011	2012	2013	2014	2015	2016	3 year avg
Pre-Engineering							
Freshman	9	10	8	11	10	9	10
Sophomore	1	2	2	3	1	1	1.67
Junior			1	1			
Senior					2		
Pre-Freshman							
Special*							
Post Bachelor	1						
Total	11	12	11	15	13	10	12.67
Pre-Medicine							
Freshman	20	23	22	27	21	14	20.67
Sophomore	7	6	6	3	16	4	7.67
Junior	3	7	1	5	1	3	3
Senior	2	4	5	1	6	2	3
Pre-Freshman							
Special*							
Post Bachelor	1	1	1				
Total	33	41	35	36	44	23	34.33
Pre-Pharmacy							
Freshman	15	18	15	11	11	6	9.33
Sophomore	8	5	8	6	6	4	5.33
Junior	3	5	3	9	7	2	6
Senior	3	4			3	1	1.33
Pre-Freshman							
Special*							
Post Bachelor							
Total	29	32	26	26	27	13	22
Majors Year	2011	2012	2013	2014	2015	2016	3 year avg
Total Math and Sciences	210	228	198	218	205	210	211

- Explanation of any significant program enrollment changes (growth/decline) from the previous year

In 2014, students listed in a program that did not lead to a degree from UAM would not have been able to get financial aid, so those students were double listed, or simply listed under an alternative program. Most pre-med students are listed as biology, most pre-pharmacy students are listed as chemistry, most pre-

engineering are listed as mathematics, and most allied health students were listed as natural science. For 2014 and 2015 we show zero students in allied health, which is totally untrue; most are listed only as Natural Sciences. Since the entering of majors has been turned over to the deans in 2017, attempts have been made to get these students properly listed. This improvement will take time to implement.

- Plans/strategies for addressing low enrollment programs including barriers that prevent enrollment growth. *ADHE Policy: When an academic program is identified as below the viability threshold, the institution may request that ADHE reconsider decisions that identified the program as a low viability program. If the request is based on suspected data submission errors, the institution must provide the source, nature, and extent of the data error.*

Mathematics is obviously flirting with the viability threshold. In 2017 we graduated zero mathematics majors; however, the previous year we graduated 8 students, so over the last three years we are above the threshold. In two years we realize that we will likely be below the threshold unless we have another year with a large number of graduates. We are looking at options to increase enrollment in the major through packaging the major with other programs of interest, such as Engineering or Physics. Over the past several years, most of the mathematics majors have chosen to go into secondary or middle level education. Now there are other options, and several students are opting for the Bachelors of Teaching and Learning with a mathematics emphasis.

- List of programs approved as cognates and dates of approval

Natural Sciences likely qualifies as a cognate program; however it is not known if approval has been sought. If not, that is something I would like to pursue in the future. In 2015, we did program reviews on those programs. It is my understanding that if those programs were cognates, that would not have been necessary.

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