Mathematics

10-Year Program Review

University of Arkansas at Monticello School of Mathematical and Natural Sciences Fall 2022

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Goals, Objectives, and Activities

1. Describe specific educational goals, objectives, and activities of the program.

The University of Arkansas at Monticello (UAM) shares with all universities the commitment to search for truth and understanding through scholastic endeavor. The University looks to enhance and share knowledge, to preserve and promote the intellectual content of society, and to educate people for critical thought. This serves as the basis for the goals of the programs housed in the School of Mathematical and Natural Sciences. The specific goals for the School of Mathematical and Natural Sciences are:

- 1. Provide academic programs which promote the development of professional scientists and mathematicians and provide opportunities for all students to enhance their understanding of the natural sciences and mathematics.
- 2. Prepare individuals for successful careers in industry and teaching and for graduate studies in science and mathematics
- 3. Provide curricula for pre-professional studies in dentistry, medicine, optometry, pharmacy, and allied health (physical therapy, radiological technology, respiratory therapy, medical technology, occupational therapy, and dental hygiene).
- 4. Provide technical and analytical courses to support studies in agriculture, forestry, nursing, education, pre-veterinary medicine, psychology, and wildlife management.
- 5. Serve the general education program through courses in biology, chemistry, earth science, mathematics, physics, and physical science that provide a basic background for a baccalaureate degree.

The Mathematics program offers a Bachelor of Science degree with one of three major options: a traditional mathematics option, a data science option, and a secondary, non-licensure, mathematics option. A minor is also available. The program prepares graduates to work in a variety of positions within industry, business, and educational institutions, or attend graduate programs in applied or pure mathematics, data science, or mathematics education.

The faculty members have high expectations in all mathematics courses, and they willingly work with students to help them rise to the level of expertise needed to be successful in their course work and in their careers.

They also work closely with students in the contexts of extra and co-curricular activities and organizations to enhance their overall experience at UAM, and to help them mature into well-rounded students and citizens:

A. Sigma Zeta Math and Science Honor Society is an active student organization which fosters group camaraderie and allows students to network with others in the School of Mathematics and Natural Sciences. The students in the Beta Pi chapter participate in various service projects throughout the year, including working with the Southeast

Arkansas Regional Science Fair and the ACTM Regional Mathematics Contest. They host a biannual Science Center cleanup day in which classrooms and laboratories are deeply cleaned and help with the removal of unused materials and equipment. Members often collaborate with high-school students on various events on campus, such as Advanced Placement test preparation events, to promote interest in the sciences and mathematics.

- B. The Southeast Arkansas Regional Science Fair (SEARSF) has been hosted by UAM School of Mathematical and Natural Sciences for fifty-eight years, with the exception of 2020 2022 because of COVID-19. The fair is open to all high-school and junior-high-school students from the southeast region of the state. The mathematics faculty members and mathematics students play a significant role in hosting the SEARSF, and for many years, the director has been a member of the mathematics faculty. The students present their research projects in a wide variety of categories, including Animals Sciences, Biochemistry, Biology, Chemistry, Computer Science, Engineering, Environmental Sciences, Mathematics, Plant Sciences, Space Sciences, and an allencompassing classification for team projects. Faculty members and students assist the participants in getting their displays set up properly. Others will work as judges of the projects; others collaborate with teachers and students during the research phase of the preparing their projects.
- C. The Southeast Arkansas Math and Science Alliance, a group of area science and mathematics teachers, meets during the academic year for professional development activities. This organization is coordinated by faculty members in the School of Mathematics and Natural Sciences and the UAM STEM Center, whose charge is to promote science, technology, engineering, and mathematics teaching in the local schools. Many of the Mathematics majors who are interested in a teaching career use this group to make contacts within the local schools and also to get ideas for classroom activities.
- D. The UAM Math and Physics Club consists of majors and minors from math and physics, and faculty members from those disciplines. The key role of this group is to promote mathematics and physics. They provide service for the mathematics and physics programs and also provide a social outlet for the students in these majors.
- E. UAM Math Tutor group consists primarily of junior and senior Mathematics majors. Almost all of our majors are employed as work-study students to tutor the lower-level mathematics students. Not only is this a benefit to the lower-level students, but it gives the tutors a much deeper understanding of the material and allows them to hone their teaching skills prior to going into the MAT program. This highly successful program started many years ago in the School of Mathematics and Sciences; however, when UAM formed its university-wide tutoring center, the program was moved to the university tutoring center. After the move, the mathematics tutoring program was not

as successful in the new location, and it was moved back to the School of Mathematics and Sciences computer lab in 2008. The tutors operate the lab approximately 35 hours per week and help the lower-level math students with My Open Math, My Math Lab, and WebAssign homework and practice problems, and also provide one-on-one supplemental instruction to those with the greatest need.

- F. Undergraduate Research opportunities exist for the students majoring or minoring in Mathematics. Several mathematics students have taken part in undergraduate research projects involving applied mathematics. They have learned a great deal about programming languages and how to do high-level computations using computational methods. Some of the students have made presentations at state and regional meetings and have had their research submitted for publication.
- G. Mathematics Seminar is the capstone course required of all Mathematics majors. Typically, the course is taken during the student's senior year after having the bulk of their required and elective course work. Normally, the student chooses a mathematical topic in their area of interest with the help of a faculty member. The student researches the topic and extends the level of coverage beyond what is covered in other courses. At the end of the term, the student does a public presentation to other students and faculty. The student is evaluated on content, organization, clarity, accuracy, completeness, quality of visual aids, and the ability to answer questions and discuss the material in depth. This course is critical in the overall development of the student, and in the preparation of the student for graduate school or a career in teaching.
- H. Currently, 29% of our declared majors are minorities. This is up from the previous year (11%), and the Mathematics faculty are striving to increase the number of minority students. The students in the Sigma Zeta Math and Science Honor Society are developing strategies to help interest students in the Research Program for Minority Students. The sponsor of Sigma Zeta reaches out to surrounding high schools in an effort to make connections with high school juniors and seniors who are interested in research. She then sends information about the Research Program for Minority Students when a minority student responds to her emails. One of our minority freshman majors chose to enroll at UAM because of his plan to join the Research Program for Minority Students and for the expected return-on-investment of the Data Science option. The Math and Physics club and sponsor are also reaching out to minority STEM students, working to provide information about opportunities in the Mathematics program for minority students.
- 2. Explain how the program serves the general education program and other disciplinary programs on campus, if applicable

The Mathematics program supports courses for other majors and for the general education program. Remedial courses are provided for those who have a weak background in mathematics.

Support courses are taught for several other majors both in the School of Mathematics and Natural Sciences and for other majors on campus.

As part of the general education requirements, which are mandated by state law, each student is required to take College Algebra or a similar course at least as sophisticated as College Algebra. Part of the mission of the Mathematics program is to place General Education students in an appropriate mathematics course based on their ACT or comparable score. UAM uses the Dana Center Mathematics Pathway model to help guide entering students to the mathematics course that best fits their level and degree plan. We currently offer remedial, co-requisite, and general education mathematics courses. While the scores listed in the Pathway model refer to specific norm-referenced exams, any equivalent score on another nationally scored comparable exam also meet the thresholds for our co-requisite and general education mathematics courses. Students in remedial or co-requisite courses can also choose to take a free placement test offered in the School of Mathematical and Natural Sciences. Students that meet the minimum score on a placement test can bypass their Dana Center Mathematical Pathway placement and enroll in a higher-level course. Table 1 details the placement of students in general education mathematics courses or remedial courses, if required. The current catalog courses for remedial, co-requisite, and general education mathematics are as follows:

• Remedial Mathematics

MATH 143 Introductory Algebra MATH 183 Intermediate Algebra

• Co-requisite Mathematics

MATH 1103 and Quantitative Literacy with Review and

MATH 102 OL with Review Lab

MATH 1143 College Algebra with Review

• General Mathematics

MATH 1003 Quantitative Literacy MATH 1043 College Algebra

| Table 1. Placement Guide of Students in Remedial or General Education Mathematics | | | | | | | | | |
|---|---------------------------|------------------|-------------|-------|--------------------------------|----------------------------------|--|--|--|
| No | rm-Referen | ced Test So | cores | | | | | | |
| ACCP_NXT GEN | ACCUP | LACER | SAT | ACT | Course Placement | | | | |
| Elem. Algebra | College -Level Math | Elem. Algebra | Math | Math | - Course I lacement | | | | |
| 1-246 | N/A | 1-56 | Up to 400 | 1-15 | | Math 143 | | | |
| 246-257 | N/A | 57-81 | 430- 500 | 16-18 | Non- STEM Majors STEM | MATH 103 & MATH 102 | | | |
| | | | | | Majors Non- | MATH 183 MATH 1103 & MATH 102 | | | |
| 257 – 269 | 42-85 | 82-108 | 510- 530 | 19-21 | STEM Majors | OR MATH 1003 | | | |
| | | | 330 | | STEM Majors | MATH 1143 | | | |
| | | | 540 | | Non- STEM | MATH 1103 & MATH 102 OR | | | |
| 270 or above | 86 or | 109 or | or | 22 or | Majors | MATH 1003 | | | |
| | above | above | above | above | STEM Majors | MATH 1143 or MATH 1043 | | | |

In addition to offering courses for General Education, the Mathematics program contributes courses such as Trigonometry, Introduction to Statistics and Calculus as major or minor requirements in other disciplines. Mathematics faculty members work very closely with the School of Education to provide opportunities for their students to meet mathematics requirements in various teacher education programs. The mathematics faculty members teach three courses required by the School of Education in their preparation for elementary and middle school teachers. These courses are MAED 2243: Fundamental Geometric Concepts, MAED 3553: Number Systems, and MAED 3563: Geometric Investigations. Pre-professional students (pre-medicine, pre-pharmacy, pre-dentistry, and some allied health majors) often take Introduction to Statistics, Trigonometry and Calculus I as part of the entrance requirements for their particular program.

While all majors are required to pass three hours of mathematics at the 1000 level or higher, there are several majors at UAM that require specific courses above the general education requirement. Table 2 indicates which courses are required for specific majors.

Table 2. Majors with Mathematics Requirements above General Education Natural Resources Management

MATH 1033 Trigonometry, MATH 1043 College Algebra

Natural Resources Management (Forestry Option)

MATH 1033 Trigonometry, MATH 1043 College Algebra

Natural Resources Management (Geospatial Option)

MATH 1033 Trigonometry, MATH 1043 College Algebra

Natural Resources Management (Wildlife Management and Conservation Option)

MATH 1033 Trigonometry, MATH 1043 College Algebra

Land Surveying

MATH 1033 Trigonometry, MATH 1043 College Algebra, MATH 2255 Calculus I

Biology

MATH 1033 Trigonometry, MATH 1043 College Algebra MATH 2255 Calculus I

Biology (Organismal Biology Option)

MATH 1033 Trigonometry, MATH 1043 College Algebra

Chemistry

MATH 1033 Trigonometry, MATH 1043 College Algebra, MATH 2255 Calculus I, MATH 3495 Calculus II, MATH 3545 Calculus III

Chemistry (Biochemistry Option)

MATH 1033 Trigonometry, MATH 2255 Calculus I

Educational Studies (Non-licensure)

MAED 2243 Fundamentals of Geometric Concepts, MAED 3553 Number Systems, MATH 1043 College Algebra, MATH 1003 Quantitative Literacy

Interdisciplinary Studies

MAED 2243 Fundamentals of Geometric Concepts, MAED 3553 Number Systems, MAED 3563 Geometric Investigations, MATH 2255 Calculus I, MATH 3495 Calculus II, MATH 3545 Calculus III

K-6 Elementary Education

MAED 2243 Fundamentals of Geometric Concepts, MAED 3553 Number Systems, MATH 1043 College Algebra, MATH 1003 Quantitative Literacy

Middle Childhood Education

MAED 2243 Fundamentals of Geometric Concepts, MAED 3553 Number Systems, MAED 3563 Geometric Investigations, MATH 1043 College Algebra, MATH 1003 Quantitative Literacy

Natural Science (Life Science Option)

MATH 1033 Trigonometry, MATH 2255 Calculus I

Natural Science (Physical Science Option)

MATH 1033 Trigonometry, MATH 2255 Calculus I

Teaching and Learning (Non-Licensure)

MAED 2243 Fundamentals of Geometric Concepts, MAED 3553 Number Systems, MATH 1043 College Algebra, MATH 1003 Quantitative Literacy

Preprofessional Programs (e.g., Premed, Pre-dentistry)

MATH 1033 Trigonometry, MATH 2255 Calculus I

Pre-engineering

MATH 2244 Introduction to Mathematical Reasoning, MATH 2343 Introduction to Statistics, MATH 2255 Calculus I, MATH 3495 Calculus II, MATH 3545 Calculus III, MATH 3403 Probability and Statistics, MATH 3463 Linear Algebra, MATH 3523 Differential Calculus

3. Document market demand and/or state/industry need for careers stemming from the program.

Graduates of the Mathematics program typically enter teaching programs, positions in industry, or graduate school. The mathematics program at UAM currently has two paths for majors - Data Science and the traditional major – with a third option, Secondary Mathematics (non-licensure), scheduled to be implemented in 2023. The traditional major prepares students for a career in STEM research and academia. The Data Science option prepares students to move into local industry and gives them the mathematics and programming knowledge needed to further their professional growth in the data science and analysis sector. The Secondary Mathematics option will further refine the traditional mathematics major to include the pedagogy necessary for effective secondary mathematics educators along with content knowledge.

Arkansas has experienced steady population growth, and this growth has led to continued demand for secondary school teachers. Every school district in the southeastern part of the state qualifies as a High-Needs District for mathematics teachers based on criteria established by the National Science Foundation. School districts throughout the region regularly solicit the UAM School of Education and the Dean of Math and Sciences for possible applicants. Many graduates of the UAM mathematics program have entered Master of Arts in Teaching (M.A.T.) programs (including the one at UAM), and almost without exception have a job waiting upon completion of the program. In 2023, the new option in the mathematics program will be available for majors interested in teaching secondary math. This option is designed to fill a need of our regional public schools for the staffing of secondary math teachers who are knowledgeable about their content and pedagogy and are well-prepared for the Praxis Mathematics Content Knowledge (5161) exam.

The mathematics data science option was added in 2020. This option to the program prepares students to move into local industry and gives them the mathematics and programming knowledge needed to further their professional growth in the data science and analysis sector. Demand remains high for such individuals and is expected to increase over the next five years. The recent (July 2021) Arkansas Economic Recovery Strategy Report highlighted the need for increasing the number of mathematics bachelor's degrees in Arkansas as well as the need for state leaders to attract talent in data science and STEM research. In 2022, the Arkansas Division of Workforce Services reported the occupation of data analyst as one of the "Top 10 Fastest Growth" occupations in every region in Arkansas.

Data science analysts and strategists are needed for growth of our state's economy. Over the past decade, several of the program's graduates completed their Master of Science degree and moved into positions in industry and higher education. All of the program's graduates who took a GRE exam for admission into a graduate program successfully met the program's admission standards. A graduate placement list is shown in Appendix G, which documents market demand for graduates of the program.

Document student demand for the program.

Pre-COVID-19, the number of Mathematics majors was consistent in the mid to low twenties. With the onset of the COVID-19 pandemic in Spring of 2020 combined with the decrease of the overall student population of the university, the number of math majors decreased over two academic years. The number rebounded in the fall of 2022 as a result of modified recruitment efforts and program changes. The following table shows the number of majors per class in the Fall terms of the past ten years.

| Table 3 Number of Majors per Class per Fall Semester of Academic Year | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|
| Fall of | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Freshmen | 5 | 14 | 12 | 13 | 10 | 7 | 8 | 6 | 0 | 5 |
| Sophomore | 8 | 4 | 2 | 6 | 3 | 6 | 5 | 6 | 2 | 2 |
| Junior | 6 | 6 | 3 | 2 | 3 | 2 | 4 | 0 | 5 | 4 |
| Senior | 6 | 2 | 8 | 2 | 5 | 4 | 2 | 4 | 1 | 2 |
| Spec/Post BS | 3 | 2 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 2 |
| Total | 28 | 28 | 26 | 25 | 22 | 21 | 19 | 16 | 9 | 15 |

The number of freshmen declared as Mathematics majors saw a brief surge in 2014 – 2016 following the establishment of the pre-engineering program and an increase of university enrollment overall. With proper advisement, students with less than a 15 on the ACT or a comparable score on nationally normed exams were advised to begin with General Studies and then move into pre-engineering as they progressed through their courses, thus leading to the reduction of freshmen majors in 2017. Apart from one or two semesters, the number of sophomore, junior, and senior majors remained fairly steady.

Over the past 10 years, the number of Mathematics minors was greatly impacted by the trend to remove the requirement of a minor in many of the university degrees as well as the removal of required upper-level math in two on-campus STEM degrees. While the Mathematics program often has students from other majors in upper-level mathematics classes, those students now choose to use the courses as upper-level electives to fill in gaps in their primary, comprehensive program.

| Table 4. Number of Minors per Fall Semester of Academic year | | | | | | | | | | |
|--|-------------------|--|--|--|--|--|--|--|--|--|
| 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 | | | | | | | | | | |
| 4 | 4 4 2 2 3 4 2 0 0 | | | | | | | | | |

The table below shows the number of Mathematics graduates per year over the last ten years. The academic year of 2016 has a slightly higher number of graduates than its surrounding years, a circumstance that coincides with the number of seniors in the program in 2015.

| | Table 5. Mathematics Graduates per Academic Year | | | | | | | | | | |
|------|--|---|---|---|---|---|---|---|---|----|-----|
| 2012 | 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 Total Avg Per Year | | | | | | | | | | |
| 6 | 2 | 5 | 3 | 7 | 5 | 2 | 3 | 3 | 4 | 40 | 4.0 |

In Spring of 2018, the Mathematics program completed an informal survey of its majors and alumni on courses wanted or needed for future and current occupations. In 2019, faculty started developing program options that addressed the need for data scientists in Arkansas as well as better pedagogically preparing majors interested in secondary-school Mathematics. The faculty then began discussing changes to the modality of courses in 2020 and adding flexibility to its degree electives. Also, during this time, the program for the traditional degree was tweaked to better serve students interested in academia.

As mentioned above, a new degree option in the Mathematics program will be available in 2023 for majors interested in teaching secondary math. Often, students interested in teaching secondary Mathematics do not find a traditional Mathematics degree palatable to their overall goals. Many courses in the traditional Mathematics degree are in preparation for further development of topics in a graduate school setting. Students who do not wish to go to graduate school and instead intend to focus on secondary education find these preparatory courses outside of their area of interest. As such, students interested in teaching secondary mathematics are often hesitant to commit to a Mathematics major. With this new option in the Mathematics degree, all of the required and supportive courses are focused on mastery of content necessary for teaching secondary mathematics, as well as relevant methods in instruction.

These recently implemented program options and curricular changes helped contribute to the consistent number of Mathematics graduates during the pandemic. With the removal of social isolation recommendations put in place during the COVID-19 pandemic, these changes to the Mathematics program to address current student perceptions and opportunities should result in an increase in program graduates.

Curriculum

1. Describe how program content parallels current think/trends in the field/trade (best practices, advisory committee recommendations, etc.).

All Mathematics faculty members are encouraged and expected to participate in regular professional development to stay current in their respective fields of expertise. To this end, all tenure-track faculty members maintain memberships in professional organizations appropriate for their mathematical specialties. Faculty members are encouraged to attend professional meetings and workshops, and the School of Mathematical and Natural Sciences maintains a budget to pay the cost of attending these meetings. Attending meetings allow faculty members to be exposed to the newest trends within the field and network with instructors from other universities. This networking and professional

renewal allow professors to be aware of the latest research-based curriculum changes in the field.

The Mathematics program at UAM is relatively small when compared to other University of Arkansas Mathematics departments. Although there are disadvantages associated with small size, its size is, overall, a benefit to students. Currently there are three full-time, tenure-track professors in the department. Discussions are held almost daily about class topics and best practices. Changes in areas of mathematics can be communicated and incorporated quickly into upper-level courses with consistency of presentation. Math faculty continually review the curriculum and student-performance data in an effort to meet the needs of math majors, minors, pre-engineers and pre-service teachers seeking licensure at either the middle school or secondary level. Analyzed student-performance data include student performance in student learning outcomes, DFW rates of courses, grade distributions, passing rates of the GRE, and student performance on the PRAXIS II Mathematics Content exam. When analysis of program data shows a deficiency, the department can move quickly to implement changes.

In 2018, the Mathematics program completed an informal survey of its alumni on courses needed for future and current occupations. Tenure-track faculty in the Mathematics program held discussions with current and prospective majors about expectations of employment after graduation, student interests, and potential changes to the modality of courses. Research was conducted on current trends in undergraduate mathematics and predicted changes in careers of Mathematics majors. The faculty started developing program options in 2018 that addressed the trends noted in the analysis of the survey. One degree option was approved and added by Fall 2020. For program options that took longer to implement, upper-level courses were updated to better reflect developments in academia and flexibility in program electives were added to the traditional Mathematics degree. The combination of these curriculum changes helped contribute to a renewed interest in the program.

As previously mentioned, the Mathematics Data Science option was added in 2020 to the Mathematics degree to provide the mathematics and programming knowledge needed for program graduates to further their professional growth in the data science and analysis sector. The degree option combined a focus on applied mathematics, statistics, and computer programming languages that the traditional major lacked. When possible, courses that overlapped with the traditional Mathematics major were tweaked to include applications, group-based discovery of mathematical concepts, and analysis. Special topics worked into the curriculum included team-based projects and presentations to help students learn to navigate collaborative tasks. Beginning in 2023, majors in the data science option will be required to keep a portfolio of their best work to demonstrate their ability to conduct analysis and discover solutions to given tasks.

In 2023, the Secondary Mathematics option, pending Board of Trustees approval, will be added to the Mathematics program. The option has been constructed to include courses

that reflect best-practices and recommendations from the National Mathematics Advisory Panel. With this new option, all of the required and supportive courses are focused on mastery of content necessary for teaching secondary mathematics as well as methods relevant in instruction. Students who complete this degree option will be prepared with the best pedological practices and exceptional content knowledge in Secondary Mathematics.

The courses required in the Mathematics program were also modified slightly over the decade. Trigonometry was moved into a more prominent position in the course sequence. Prerequisites were added to better prepare majors for the material covered in upper-level courses. Two courses were added to the major requirements, Introduction to Mathematical Reasoning and Introduction to Statistics, and one course, Python Programming, was added as an option in the supportive requirements. Introduction to Mathematical Reasoning fulfills the need of added instruction in the rigor of mathematical proofs, methods of construction of proofs and analysis of faulty lines of reasoning. In the traditional major, the course is a prerequisite for the upper-level proof-based courses – namely Number Theory, Abstract Algebra, College Geometry, and Linear Algebra.

In the degree options of Data Science and Secondary Mathematics, the course is included so students can learn the necessary skills to analyze mathematical arguments throughout their upper-level requirements. Introduction to Statistics covers common statistical methods for analysis of data used in the sciences. For students in the traditional major or data science option, Introduction to Statistics provides the pre-requisite knowledge required for successful completion of the required upper-level course Probability and Statistics. The Secondary Mathematics option does not require Probability and Statistics, so Introduction to Statistics provides the exposure and proficiency requirements of data analysis required in secondary mathematics occupations. Python Programming was added as an option in the supportive programming requirements of the traditional major and data science option. Python is a commonly used programming language in data science and used in the employment of statistical methods, numerical analysis, and mathematical modeling in STEM research. Finally, Advanced Calculus was removed as a requirement for the traditional degree due much of the material moving to the Calculus sequence.

In many of the courses of the Mathematics program, curriculum has been adjusted to include contributions by mathematicians outside of the sphere of Western influence. As examples, MATH 3233 incorporates non-Western mathematicians in the majority of its topics and MATH 2333 uses ideas generated by minority mathematicians to help drive some of the student learning. Mentions of the contributions of minorities in specific topics are also included during lectures in the Calculus sequence and students are encouraged to use research generated by minority mathematicians in their Capstone requirement. Currently, the Mathematics program has students involved in the RPMS program which provides minority students opportunities in scientific research.

Students in the program are encouraged to take part in interdisciplinary initiatives as part of their program of study. In terms of course-work, program students often choose to take

the Robotics course implemented by the Physics faculty and use their skills to help teammembers analyze results of their builds. The last time the Robotics course was offered, six students in the Mathematics program chose to take the course. Over the last seven years, five program students have engaged in interdisciplinary research with the Chemistry and Biology faculty and students in a multi-year research project. One recent graduate worked with the music department in his research of prevalence of chords in certain music genres. Students in the program often use principles from computer science and the natural sciences in their Capstone project which is completed during MATH 4711 Mathematics Seminar. Outside of class, participation in the Vex Robotics Competition, membership in CHI Iota Sigma (the CIS student organization) and taking part in academic tutoring illustrates the connections between program students and other disciplines on campus.

In the past few years, the program has moved to a co-requisite model for some general education courses. This model gives the students the shortest plausible pathway to completing required general education math courses. The move started with pilot courses for an academic year with catalog courses added in 2020. The results have been encouraging. In spring of 2011, the remediation rate for Mathematics was approximately 64%. This rate has fallen throughout the last ten years to approximately 35%.

2. Provide an outline for each program curriculum, including the sequences of courses.

Proper advising is especially important for Mathematics majors. For those who enter with the qualifications to go directly into Calculus I, there are no problems; however, many of our majors are deficient in Trigonometry and/or College Algebra. It is recommended that those incoming Mathematics majors take College Algebra and Trigonometry during their first semester of college. Some choose to take only College Algebra in their first term, and Trigonometry and Calculus I concurrently in their second term. Since many of the upper-level courses are taught on a two-year rotating schedule, it is important that students complete the prerequisite courses as early in their degree plans as possible. The two-year Mathematics schedule is represented in Table 6. With the implementation of the Secondary Mathematics degree option in 2023, three Mathematics Education classes will be added. Appendix A contains 8-Semester sequences of courses that serves as guides for majors.

| Table 6. Course Offering Schedule for Mathematics (MATH) and Mathematics Education (MAED) | | | | | | | | |
|---|-------|--------|-------|--------|--------|--------|--------|--------|
| Comme | Г | Г | F 11 | T = 11 | I c · | | G | |
| Course | Every | Every | Fall | Fall | Spring | Spring | Summer | On |
| | Fall | Spring | Odd | Even | Odd | Even | | Demand |
| | | | Years | Years | Years | Years | | |
| Introduction to Algebra | X | X | | | | | X | |
| Intermediate Algebra | X | X | | | | | X | |
| Quantitative Literacy with Review | X | X | | | | | X | |
| College Algebra with Review | X | X | | | | | | |
| College Algebra | X | X | | | | | X | |
| Trigonometry | X | X | | | | | X | |
| Quantitative Literacy | X | X | | | | | X | |

| Introduction to Statistics | | X | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|
| Introduction to Mathematical | Х | | | | | | | |
| Reasoning | | | | | | | | |
| Calculus I | X | X | | | | | | |
| Calculus II | X | | | | | | | |
| Calculus III | | X | | | | | | |
| History of Math | | | | | X | | | |
| Prob. & Stats | | | X | | | | | |
| Number Theory | | | | X | | | | |
| College Geometry | | | | X | | | | |
| Abstract Algebra | | | X | | | | | |
| Linear Algebra | | | | | | X | | |
| Discrete Math | | | | | | X | | |
| Differential Eq | | | | | X | | | |
| Math Seminar | | | | | | | | X |
| Special Topic | | | | | | | | X |
| Independent Study | | | | | | | | X |
| Research and Reading | | | | | | | | X |
| Fund. Geom. | Х | | | | | | Х | |
| Concepts | Λ | | | | | | Λ | |
| Number Systems | X | | | | | | X | |
| Geometric | | X | | | | | | |
| Investigations | | Λ | | | | | | |
| Methods of | | | | X | | | | |
| Teaching Math I* | | | | Λ | | | | |
| Methods of Teaching Math II* | | | | | X | | | |
| Praxis Mathematics Content * | | | X | | | | | |

Note: Courses marked with asterisk will be added to the Mathematics schedule beginning in Fall 2023.

3. State the degree requirements, including general education requirements, institutional, college, or school requirements, and major requirements.

The Bachelor of Science degree in Mathematics requires 120 hours, which includes 35 hours of General Education, 43 hours of major requirements and 17 hours of supportive requirements. This major does not require a minor; however, students must complete elective hours to reach 120 hours for the bachelor's degree. Of the 120 hours, 40 must be at the 3000-4000 level.

The Bachelor of Science degree in Mathematics, Data Science option, requires 120 hours, which includes 35 hours of General Education, the Bachelor of Science identity requirement, 43 hours of major requirements and 33 hours supportive requirements. This major does not require a minor. However, of the 120 hours, students must complete 40 credit hours at the 3000-4000 level.

The Bachelor of Science degree in Mathematics, Secondary Mathematics option, will require 120 hours which includes 35 hours of General Education program, the Bachelor of

Science identity requirement, 43 hours of major requirements and 33 hours supportive requirements. However, of the 120 hours, students must complete 40 credit hours at the 3000-4000 level.

The Minor in Mathematics requires twenty-four hours of mathematics coursework. This includes the fifteen-hour calculus sequence and nine hours of 3000 or higher-level mathematics courses.

The General Education requirements are listed in Appendix B. The Mathematics Major, Options and Minor Requirements are found in Appendix C.

4. Indicate the semester/year the major/program courses were last offered. Exclude general education courses.

| Course # | Course Title | Semester last offered |
|---------------|---------------------------------------|-----------------------|
| Mathematics R | Requirements and Available Electives. | |
| MATH 1033 | Trigonometry | Fall 2022 |
| MATH 2255 | Calculus I | Fall 2022 |
| MATH 2333 | Introduction to Mathematical Reason | ning Fall 2021 |
| MATH 2343 | Introduction to Statistics | Spring 2022 |
| MATH 3233 | History of Mathematics* | Fall 2014 |
| MATH 3403 | Probability and Statistics | Fall 2021 |
| MATH 3413 | Number Theory | Fall 2022 |
| MATH 3423 | College Geometry | Fall 2022 |
| MATH 3453 | Abstract Algebra | Fall 2021 |
| MATH 3463 | Linear Algebra | Spring 2022 |
| MATH 3483 | Mathematical Modeling** | Spring 2017 |
| MATH 3495 | Calculus II | Fall 2022 |
| MATH 3513 | Discrete Mathematics | Spring 2022 |
| MATH 3533 | Differential Equations | Spring 2021 |
| MATH 3545 | Calculus III | Spring 2022 |
| MATH 4003 | Advanced Calculus** | Spring 2016 |
| MATH 4711 | Mathematics Seminar | Spring 2022 |
| MATH 465V | Mathematics Reading and Research | Fall 2020 |
| MATH 479V | Independent Study in Mathematics | Spring 2022 |

Note: Courses marked with * were recently moved from an elective to a requirement for a program option and will be taught in Spring 2023.

Note: Courses marked with ** were removed from major requirements within the last decade and topics from the courses were incorporated into other required courses.

5. Provide Syllabi for discipline-specific courses and departmental objectives for each course.

Syllabi for all MATH courses are found in Appendix D

6.Outline the process for the introduction of new courses, including all internal curriculum review processes and the findings.

The Mathematics faculty continually review the curriculum and make appropriate adjustments based on the analysis of program assessment data. Whenever a curriculum change is needed, the Mathematics faculty discuss the changes and form a proposal. The proposal is reviewed by the Dean of the School. When approved, the Dean submits the proposal to Deans Council. A review period of ten days begins at this point. This procedure ensures that all academic deans are aware of the consequences to their own programs before the new course is reviewed by the Curriculum and Standards Committee. This 10-day review process usually affords sufficient time for minor issues to be resolved. The proposal is reviewed at a Deans Council meeting, which meets approximately 8 times per semester. With Deans Council approval, the proposal is forwarded to the Curriculum and Standards (C&S) Committee. The School of Mathematics and Natural Sciences representative then presents to the C&S Committee. Occasionally, the Dean or a faculty member will attend the meeting to answer any questions that may arise. With approval of the Curriculum and Standards Committee, the proposal is forwarded to the UAM Assembly where it is brought to a vote. Once it has received the approval of the Assembly, the proposal is approved by the Chancellor, and if required, reviewed by the Board of Trustees and the Arkansas Department of Higher Education. Once all approvals have been obtained, the proposal is sent back to the Registrar's Office for final operation and inclusion into the official catalog.

7. List courses in the proposed degree program currently offered by distance delivery.

None of the courses required for the Mathematics major are offered by distance delivery at this time; however, some general education (MATH 1003, MATH 1043, MATH 1103) and mathematics education (MAED 2243, MAED 3563) courses are offered online to serve the online Bachelor of Science of Educational Studies degree offered by the School of Education.

8. Describe the instructor-to-student and student-to-student interaction for distance courses (prerequisite courses, lab requirements, examination procedures-online/proctored, and instructor to student assignments).

As stated above, distance courses are limited to general education and elective courses. No required courses for Mathematics majors are offered. Usually, these are courses are offered at the request of the School of Education or Academic Affairs. The instructor is available to their students via email, telephone, Blackboard, and designated office hours. Some instructors keep virtual office hours with Blackboard Collaborate open for students to log-in and ask questions in real-time. Assignments are given via a homework website linked through Blackboard. Students receive immediate feedback from the homework website and have multiple attempts per problem to help them master the concepts. Documents to aid in study for exams are posted on the course Blackboard shell as well as extra practice problems that give immediate feedback.

Exams are scheduled the same day as or close to the date scheduled at UAM campus for multi-section courses. Prior to the COVID-19 pandemic, all exams were proctored at approved testing centers. Students had to receive approval to take exams at a testing

center, schedule their test with their chosen testing center, and submit the exam within a specified time frame. During the COVID-19 pandemic, physical testing centers were not available, and exams moved to an online format. Post-pandemic, assessments are more authentic (e.g., discussions, demonstrations, reflections, reports) with online exams as only one portion of a student grade. Authentic assessments are graded with a rubric made available to students before the submission date of the assignment and returned to students with feedback.

Program Faculty (fulltime/adjunct/part-time)

1. Provide curriculum vitae or program faculty information form for all fulltime program faculty. The vita or form should include the following: all degrees and institutions granting the degrees; field or specialty of degrees; number of years employed as program faculty at the institution; current academic rank, if applicable; professional certifications/licenses; evidence of quality and quantity of creative and scholarly/research activity; evidence of quality and quantity of service activities; evidence of professional activities and non-teaching work experiences related to courses taught; list of course numbers/course titles of credit courses taught over the past two academic years; and other evidence of quality teaching.

See Appendix E for faculty vitae.

2. Indicate the academic credentials required for adjunct/part-time faculty teaching major/program courses.

The minimum requirements for teaching as an adjunct faculty member are a master's degree and eighteen hours of graduate course work in mathematics. The eighteen hours of graduate course work must consist of a minimum of twelve hours of content that is specifically at the secondary level or higher (elementary and middle school teaching content courses will not count in this twelve-hour requirement). The other six graduate hours may be in either math content or math pedagogy (math pedagogy cannot be specifically either elementary or middle school).

The math pedagogy courses include MAED 5293 (Topics in Mathematics) Teaching Algebra, MAED 5293 (Topics in Mathematics) Math Coaches I, II, III, IV, and V, and Math 5623 Higher Order Math.

The math content courses include all the following: MAED 5293 (Topics in Mathematics) Algebra, Vector Analysis, Real Analysis, or Complex Analysis; MAED 5023 Linear Algebra; MAED 5243 Modern Algebra, Group Theory, Topology; MAED 5043 Intermediate Analysis; MAED 5033 Probability and Statistics.

An adjunct faculty member without full qualifications is hired on a provisional basis. It is expected that such persons are working to complete the requirements. In particular, such persons would be expected to enroll in the graduate mathematics courses offered at the University of Arkansas at Monticello; or such persons could enroll in courses at other universities or take on-line or correspondence courses provided that written approval has

been obtained in advance from the Dean of the School of Mathematical and Natural Sciences and the committee.

3. Describe the orientation and evaluation processes for faculty, including adjunct and part-time faculty.

During Professional Development Week prior to the beginning of Fall Semester there is an official orientation program for full-time faculty, who attend a number of workshops on academic advising, the available software and accessible technology, and pedagogical best practices. For multi-section courses faculty also take part in specific course meetings that are organized by the course coordinator.

Each faculty member, including adjunct faculty, is evaluated annually. Faculty are required to submit a self-evaluation to the Dean of the School of Mathematical and Natural Sciences.

Faculty with fewer than six years of service to UAM must complete a "full evaluation," which includes being evaluated by a minimum of three peer faculty members, who respond to the faculty member's self-evaluation and do class observations. In addition, all students in all classes are asked to complete an end-of-course survey.

Faculty who are tenured or have six years of service are generally required to have only one peer reviewer, who is chosen by the Dean, and can choose to have only one class complete the end-of-course survey.

The tenured faculty and non-tenure track faculty who have completed six years of service are required to undergo the full evaluation process at least once every five years.

Once this process is complete, the Dean reviews all of the combined evaluations to assess faculty performance. The Dean then uses the totality of the evaluations by the faculty peer, students, self-evaluation, and observation data to complete a review of their performance. The Dean schedules a meeting with the faculty member to discuss their accomplishments and make suggestions for possible improvements. After this review, the evaluation and all supporting materials are sent to the Vice Chancellor for Academic Affairs for review and comments. If a faculty member disagrees with the Dean's evaluation, he or she may send information to the Vice Chancellor for additional consideration. After this is completed, the Vice Chancellor for Academic Affairs sends their recommendation to each faculty and the Dean.

4. Provide average number of courses and number of credit hours taught for full time program faculty for the current academic year.

The course load for a full-time faculty member who holds an academic rank of Assistant Professor, or higher, is 12 credit hours per term. The course load for those holding the rank of Instructor is 15 credit hours per term. Occasionally, there are opportunities for extra courses to be taught as an overload for additional pay. Summer teaching opportunities are available for courses that meet the minimum enrollment. All courses at the junior and senior level are taught by tenured or tenure-track faculty members. The Mathematics program has three full-time Associate Professors, one half-time Associate

Professor who is assigned 12 credit hours of mathematics courses over the spring and fall semester, and three full-time Instructors.

| | Table 7. Faculty Workload for Summer II 2021- Summer I 2022 | | | | | | | | | |
|------------------|---|---------------|--------------|-------------|----------------------|-------------|--------------|----------|--------------|--|
| F 1/ | TE: A | Summer I 2021 | | Fall 2021 | | Sprin | g 2022 | Summe | r II 2022 | |
| Faculty Title | 1 itie | Sections | Course | Sections | Course | Sections | Course | Sections | Course | |
| D. (| T. d. d. | 1 | MATH 1103 | 3 | MATH 1103 | 3 | MATH 1103 | 1 | MATH 1103 | |
| Barton, Laura | Instructor | 1 | MATH 102 | 3 | MATH 102 | 3 | MATH 102 | 1 | MATH 102 | |
| | | | | 2 | MATH 1003 | 1 | MATH 1003 | | | |
| Cooper, Lura | Instructor | | | 1 | MATH 1043 | 1 | MATH 1043 | | _ | |
| Cooper, Lura | mstructor | | | 1 | MATH | 1 | MATH 2343 | | | |
| | | | | 1 | 2255 | 1 | MATH 2255 | | | |
| | | | | 1 | MATH 1003 | 1 | MATH 3463 | | | |
| Fox, Victoria L | Associate Prof | 2 | MAED | 1 | MATH 2333 | 1 | MATH 3545 | 2 | MAED | |
| , | Assistant Dean | | 2243 | 1 | MATH 3495 MATH | 1 | MATH 479V | | 2243 | |
| | | | MATH | 1 | 4711 | | 4/91 | | | |
| | Ai-t- Do-f | 1 | MATH 1003 | 1 | MATH 102 | | MATH | | | |
| Gavin, Jared | Associate Prof. Math & Phys. | 1 | MATH | 1 | MATH 1043 | 1 | MATH 1043 | - | | |
| | | | 1043 | 1 | MATH 1103 | | 264 577 | | L MARKET | |
| | | 2 MATH 143 | 2 | MATH 143 | 1 | MATH 143 | | | | |
| Goodding, Alan | Instructor | - | - | 3 | MATH | 2 | MATH 183 | 1 | MATH | |
| | | | | _ | 183 | 1 | MATH 1043 | | 183 | |
| | | | | 1 | MATH 1033 MATH | 1 | MATH | | | |
| Martin, Carol ** | Associate Prof | _ | | 1 | MATH 1143 MAED | | 1033 | | - | |
| | | | | 1 | 2243 MAED | 1 | MATH 1143 | | | |
| | | | | 1 | 3353 | | | | 1 | |
| | | | | 1 | MATH 1003 | 1 | MATH 1003 | 1 | MATH | |
| Sayyar, Hassan | Associate Prof. | - | | 1 | MATH 3403 | 1 | MATH 1043 | | 1003 | |
| Say yar, Hussan | 7155001410 1 101. | | | 1 | MATH 3453 | 1 | MATH 3513 | 1 | MATH | |
| | | | | 1 | MATH 479V | 1 | MATH 479V | 1 | 1043 | |

Program Resources

1. Describe the institutional support available for faculty development in teaching, research, and service.

The University offers a variety of support in these areas. Regarding teaching, faculty are encouraged to seek areas of special interest and, when possible, teach in those specific areas. Faculty members are encouraged to develop special topics courses, which may later become part of the regular curriculum if they fill a need. Faculty members wishing to develop online courses are supported with institutional training and, in some cases, financial incentives. The University also provides technical support for the UA-system-wide learning platform, Blackboard. All of the classrooms in the Science Center are equipped with a computer, a document camera, and a projector, and all Mathematics faculty utilize this technology in their classroom instruction. The faculty are encouraged to attend professional meetings to enhance their teaching skills or their work in other scholarly activities.

The School of Mathematical and Natural Sciences may support faculty research and scholarly activity by granting course relief or sabbatical leave. Faculty are encouraged to write textbooks and generate new methods of teaching using technology and materials and can further their research. Math faculty are continually researching the latest trends in education, new software products, and new mathematical tutorial programs, and upgrading the textbooks that they have written. Faculty research grants are available through the University on a competitive basis for funding basic research. These grants can even pay students a stipend for their work on projects with faculty members. Several of the faculty members in Mathematics are engaged in scholarly activity related to training teachers and working with the teachers in the public schools.

The School of Mathematical and Natural Sciences may support service to the University by granting course relief or sabbatical leave. Faculty are encouraged to serve on the University committees and the Math faculty are highly active in this regard. Over the past three years, Mathematics faculty have served on Curriculum and Standards, Academic Appeals, Faculty Research, Program Review, Strategic Planning, and the University Judicial Board for Student Behavior. They have also participated in numerous University Work Groups, such as the Distance Learning Work Group, General Education Work Group, Faculty Senate Work Group, and Development of Best Practices Work Group. This provides a growth opportunity for faculty members and allows them to use their experience and specific skills as they change committee membership. A faculty member serving on Academic Appeals for many years brought insights back on how to better structure Quantitative Literacy and College Algebra for student success. During the development the Data Science Option, faculty members who had served on the Curriculum and Standards committee provided guidance on how to request changes and write curriculum changes into potential catalog listings. Another faculty on the Teacher Education Committee helped format the upcoming Secondary Mathematics Option in the Mathematics Program. She listened to the discussions from University faculty, public school administrators, and students involved with the committee and began gathering data

on the need for a Secondary Mathematics track in order to provide area schools with well-trained mathematics teachers confident in their content.

Math faculty are also active in service to the community, providing their expertise to a variety of areas. Several faculty members volunteer for the Southeast Arkansas Science Fair while two Mathematics faculty serve on the board for the Science Fair. The Regional Mathematics Competition for Southeast Arkansas 7-12 grade students is likewise aided with the guidance and service of the Mathematics faculty. All of the faculty volunteer to tutor in the Mathematics Tutoring Lab and two of the faculty tutor area high-school students. Faculty members serve on Water Associations, the Delta Area Community Foundation, and manage the regional Vex Robotics Competition. In all of these examples of service, faculty members used their skills to aid in the management, communication, and logistics of the activity to aid in the successful completion of the venture.

2. Describe the professional development of full-time program faculty over the past two years including the institutional financial support provided to faculty for the activities.

Since the onset of the COVID-19 pandemic, faculty development for mathematics faculty has moved online. The last two years have shown faculty still attend conferences, workshops, and participate in professional activities. However, the activities do not have an associated cost for the School of Mathematical and Natural Sciences due to the absence of travel, lodging, and per diem. Faculty have also chosen professional development in which registration fees are waived. As a result, the School of Mathematical and Natural Sciences has not incurred any cost for professional development of Mathematics faculty for the past two years. See Appendix E for faculty vitas in which all professional development they have participated in over that past two years is listed.

3. Provide the annual library budget for the program or describe how library resources are provided for the program.

Each academic unit, along with library liaisons, recommends library purchases of materials. The budget is spent on books, e-books, journals, e-journals, and databases. The total budget for the entire School of Mathematics and Natural Sciences is \$15,000; however, the budget isn't split into amounts spent for each department. Periodically, the library liaisons contact the School of Mathematical and Natural Sciences and seek guidance on new materials for the library. They also ask for advice concerning removal of obsolete material, old editions of books, or physically damaged material. Electronic databases are upgraded regularly giving faculty an excellent access to new publications. The library also offers a very liberal library loan policy allowing each faculty one or more free library loan requests.

4. Describe the availability, adequacy, and accessibility of campus resources (research, library, instructional support, instructional technology, etc.).

The School of Mathematical and Natural Sciences attempts to provide the latest technology for instruction. Every classroom in the Science Center is equipped with a computer, a document camera, and a digital projector. The classroom used primarily by

upper-level mathematics and physics courses is equipped with a WACOM tablet and flatscreen television. All of the classrooms are connected to the internet. The Science Center Computer Lab and Tutor Center receives occasional computer upgrades and Information Technology (IT) provides MicrosoftTM software packages, SASTM Statistical Software, and other needed software on request. IT continually works with the Mathematics faculty to make sure that students and tutors have access to the latest versions of the educational software being used in the courses. IT also provides support for BlackboardTM, a shell for which is created for every class regardless of whether a class is in-person, hybrid, or online.

The UAM Library features a large volume of content for faculty research and development and can also be used in instructional technology. Library resources in the area of mathematics are extensive.

- I. Periodical and Book Titles:
 1000 online periodical titles, 6 printed periodicals, 40 eBooks, and 3,908
 Mathematics titles in print.
- II. Electronic Resources by Subject
 - A. Specialized Databases
 - 1. ScienceDirect (Elsevier)

An online journal collection that provides access to journals covering scientific, medical, and technical information published in 24 fields of science

2. SpringerLink

An online journal collection that provides access to scientific, and medical journals

- B. General Databases
 - 1. Academic Search Complete
 - 2. Article First
 - 3. Credo Reference Online
 - 4. FirstSearch Databases
 - 5. LexisNexis Academic
 - 6. *Masterfile*
 - 7. Premier ProQuest Research Library

III. Bibliographic Instruction

A professor may contact the library liaison to schedule a class period in which the librarian instructs students about resources that will be most helpful in their classes. Students can also request individual research consultations with a librarian.

5. Provide a list of program equipment purchases for the last three years.

Equipment is overwhelmingly shared with the other programs in the School of Mathematical and Natural Sciences. A flat-screen television (\$1000) for the classroom used by upper-level mathematics classes was purchased in 2021 to aid in the presentation of lectures. This classroom, A3, is also used by Physics, Chemistry, and Biology faculty throughout the semester and they also use the television for presentation of material. A Wacom tablet (\$650) for classroom A3 was also purchased in 2021 to provide the use of a stylus and tablet configuration for handwritten notes. In 2022, a classroom set of compasses and assorted geometric construction aids was purchased for \$106.32. Aside from these purchases, the classroom computers were replaced with newer models for all the classrooms in the Science Center in 2020, and three faculty – Ms. Lura Cooper, Dr. Hassan Sayyar, and Dr. Jared Gavin – received new office computers. Ms. Cooper received her computer in 2020, Dr. Sayyar received his in 2019, and Dr. Gavin received his in 2021. The computer purchases were part of a rolling equipment replacement schedule employed by the School of Mathematical and Natural Sciences.

Instruction via Distance Technology

1. Summarize institutional policies on the establishment, organization, funding, and management of distance courses/degrees

The UAM campus governance and academic approval processes are followed for any new course added to the curriculum. Any new degree program, regardless of the method of delivery (distance technology or not) must be reviewed by the faculty, approved by the academic unit Dean, the Academic Council, Assembly, Chancellor, the University of Arkansas Board of Trustees, and the Arkansas Department of Higher Education Coordinating Board prior to implementation.

Blackboard shells are automatically generated by Information Technology for all courses present in the enrollment schedule. Technical assistance is provided by the Office of Academic Computing as needed/required throughout the semester and/or term.

The UAM Office of Academic Computing is responsible for the management and maintenance of the learning management system server and must communicate with the Office of Academic Affairs regarding available space/seats and other administrative concerns. Additionally, the Office of Academic Computing is responsible for providing technical assistance to the faculty who teach online courses.

2. Summarize the policies and procedures to keep the technology infrastructure current.

University of Arkansas at Monticello faculty and students have access to infrastructure

and technology that includes intranet, Blackboard, Compressed Interactive Video, broadband Internet, and access to the online catalog, electronic books, and journals available in the Fred J. Taylor Library and Technology Center, as well as web-based mediums. Regular funding is part of an ongoing process that includes technology upgrades, software licensing, and technical support. UAM recently completed an eight-year plan to provide a technology infrastructure that increased the University's academic competitiveness. This plan included Level One technology certification for all buildings on all three campuses.

In the summer of 2010, UAM, a founding member of the Arkansas Research and Education Optical Network (ARE-ON), connected to the ARE-ON Network allowing access to two high-speed 24 national networks, the Internet2 and National Lambda Rail. Completion of this project allowed UAM to collaborate with all universities and colleges that share the network as well as access to the Internet at a much faster rate.

UAM has also purchased a financial and student information software system, PeopleSoft, updating the institution's 25-year-old software system, which will make secure access to campus educational and planning resources available to students via the Internet. UAM began offering distance education courses in 1999 with WebCT, and utilized various versions of WebCT until summer 2010, when UAM changed over to Blackboard as its distance learning course management product of choice. In 2022, UAM migrated to Blackboard Ultra and provides support to all students and faculty as they adjust to the modern learning management system.

3. Summarize the procedures that assure the security of personal information.

The UAM Information Technology Department sets forth guidelines for the protection of personal information following the information security policies regulated by the State of Arkansas security recommendations. These guidelines state that UAM can only collect personal information through a secure link and with prior approval from that individual. Personal information cannot be stored on the course management system by the students and/or faculty. The Office of Academic Computing regularly scans web sites for the presence of personal information. The removal of any personal information found on the course management system is immediate. The Learning Management system (Blackboard Ultra) is subject to the same security measures as all other Information Systems on the UAM campus and meets the State of Arkansas security guidelines for protecting personal information.

- 4. Describe the support services that will be provided to students enrolled in distance technology courses/programs by the institution and/or other entities:
 - Advising
 - Course Registration
 - Financial Aid
 - Course Withdrawal
 - Email Account
 - Access to library Resources
 - Help Desk

Support services provided to students enrolled in distance technology include advising, course registration, financial aid services, course withdrawal, e-mail services, access to library resources, and a help desk. Online students receive the same advising support as students taking courses on-campus. Advisors are available via published contact phone numbers and e-mail and are always ready to help students with preparation for registration. Currently, students who are registering for only online courses are directed to contact the UAM Office of Academic Affairs for support and assistance. For financial aid for distance education students, students may complete the Free Application for Federal Student Aid (FAFSA) online and can view their financial status via WeevilNet.

Requested verification documents, loan requests, and award acceptance letters can be submitted via mail, e-mail or fax rather than through a personal visit. In regard to course withdrawal, students are directed to contact the institution's Assistant Vice Chancellor for Student Success for support and assistance. Student e-mail accounts are governed by the University Information Technology department. The UAM webpage contains links to connect to e-mail, tutorials on using the e-mail system, instructions for initial login, and support phone numbers to contact in the event students are unable to log in to their e-mail. Information Technology is open 8 am-4:30 pm Monday-Friday for student e-mail account problems.

The Library website is linked on the main UAM homepage and provides distance education students access to Subject Guides, Library Guides, the Library catalog, an extensive list of databases, and a tool for searching magazines, newspapers, and journals for information. The Library webpage also provides contact information should students need specific services that are not linked to the main page. The Office of Academic Computing features a Support Center, also linked on the main UAM Webpage (Blackboard link). This link allows students to access tutorials on "How to Use Blackboard" and "Problems with Blackboard" for students to reference for quick resolutions. The support page also features contact phone numbers for the Support Center, a form to complete to request assistance via email, and a "Live Chat" option in which the student can be directly connected to an individual in the support center for live assistance. The Office of Academic Computing also periodically offers workshops on Blackboard Ultra usage; these workshops are now required for all students utilizing any form of distance education.

5. Describe technology support services that will be provided to students enrolled in distance technology courses/programs by the institution and/or other entities.

Support services are provided to students enrolled in distance technology courses primarily by the Office of Academic Computing. Faculty members also assist with issues with which they are familiar to help share resolutions. The Office of Academic Computing supports distance technology courses with training workshops on how to use Blackboard, online tutorials, e-mail forms for support, and by providing contact phone numbers for the Support Center, and a web option for Live Chat with support personnel. Blackboard Ultra training workshops are now required for all students using any form of distance education. The e-mail form, the chat option, and direct phone calls put users in contact with support

personnel who gather information about the user's computer, internet connection, and the specific problem. Using this information, support personnel attempt to diagnose the issue and provide a timely resolution to the problem.

6. Describe the orientation for students enrolled in distance technology courses/programs.

Institutional policy in regard to orientation for distance technology courses is as follows (from UAM Faculty Distance Education Handbook).

"Conduct an orientation (online) in each course at the beginning of each term to ensure each student understands the requirements of the course and can access the course. Advise students of the time and energy demands of the course as well as establishing clear limits on what the course is and is not."

Each faculty member interprets this orientation process in a slightly different manner, but all complete the requirements to ensure students understand how to use the software, view the syllabus, utilize the calendar and discussion boards, and other software features. Many instructors include a video orientation session where the instructor covers the basics of Blackboard, homework requirements, and testing dates. Each style of orientation session presents the instructor's contact information, office hours, and expectations for student performance in the course. The UAM Faculty Distance Education Handbook can be found in Appendix J and the UAM Student Distance Education Handbook can be found in Appendix K.

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 the standard faculty workload. Thus, distance technology courses are viewed the same as classroom courses in the area of workload, credit hours taught, and compensation. Faculty are 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:

"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 dipped, likely because of COVID-19. The numbers should recover with the recent changes in recruitment methods and program options. The table below shows the number of Mathematics majors per class over the past three years.

| Table 10. Declared Mathematics Majors | | | | | | | | | |
|---------------------------------------|------|------|------|--|--|--|--|--|--|
| Fall of | 2020 | 2021 | 2022 | | | | | | |
| Freshmen | 6 | 0 | 5 | | | | | | |
| Sophomore | 6 | 2 | 2 | | | | | | |
| Junior | 0 | 5 | 4 | | | | | | |
| Senior | 4 | 1 | 2 | | | | | | |
| Spec/Post BS | 0 | 0 | 2 | | | | | | |
| Total | 16 | 9 | 15 | | | | | | |

2. Describe strategies to recruit, retain, and graduate students.

As part of recruiting, the School of Mathematical and Natural Sciences has developed relationships with area high-school mathematics teachers. Prior to the COVID-19 pandemic, Mathematics faculty members made trips to local high schools to present mathematics topics to math classes. Also, the high-school teachers with their junior and senior level students visited various university math classes. These activities gave faculty an opportunity to market the University, and our major in particular. During the pandemic, faculty members were not allowed to visit area high schools, nor did area juniors and seniors travel to UAM to visit classes. This lack of personal, face-to-face contact greatly impacted the department's recruiting. When restrictions are lifted and area high schools allow visitors to interact with students, the Mathematics department will once again begin visiting. In the interim, Mathematics faculty regularly check-in with area mathematics teachers and contact students – via email, phone calls, and physical letters – who have indicated an interest in the Mathematics program or pre-engineering.

UAM has returned to on-campus community events and the Mathematics faculty have used these events to help recruit students into the program. The School of Mathematical and Natural Sciences recruits potential students during their visit in events such as Scholar's Day, Weevil Welcome Days, and Parent/Family Appreciation Day. The format of these recruitment days has changed from pre-pandemic standards and the Mathematics faculty have adjusted to the new layout. Prospective students receive a contact letter describing Mathematics program and an invitation to visit our school for further information concerning the Bachelor of Science degree in Mathematics.

Prior to the pandemic, UAM hosted three Advanced Placement (AP) test prep sessions each year in Mathematics. Approximately 200 local high school students that are enrolled in AP Calculus or AP Statistics visited our campus with AP trainers for the Saturday events. During breaks, faculty and representatives from the Office of Admissions spoke with students about Mathematics opportunities at UAM, and even other universities. The regional mathematics competition was also held at the UAM Science Center and faculty members volunteered to help with the contest. Postpandemic, these avenues have not yet returned. In lieu of a face-to-face mathematics

contest, the contest director, a member of the Mathematics faculty, held a virtual contest and attempted to form connections with interested students via online communications. Another member of the faculty is involved in AP workshops, discussion boards, and conferences and is available to area AP teachers who reach out for help.

As stated earlier in this self-study, 29% of our declared current majors are minorities. This is up from the previous year (11%), so we are seeing improvement in the area of diversity. The students in the Sigma Zeta Math and Science Honor Society are developing strategies to help interest students in the Research Program for Minority Students. The sponsor of Sigma Zeta has reached out to surrounding high schools in an effort to make connections with high school juniors and seniors that are interested in research. She then sends information about the Research Program for Minority Students when a minority student responds to her emails. One of our minority freshman majors chose to enroll at UAM due to his plan to join the Research Program for Minority Students and for the expected return-on-investment of the Data Science option. The Math and Physics club and sponsor are also reaching out to minority STEM students, working to provide information about opportunities in the Mathematics program for minority students.

The undecided General Studies majors are given information on job opportunities by their math instructors and encouraged to consider continuing their study of mathematics and/or sciences. Students interested in mathematics or pre-engineering are also recruited through the members of Sigma Theta and Math and Physics Club within our school. While we cannot offer engineering courses, the mathematics and analysis foundations are included in our Data Science option. As a result, many pre-engineering students change their degree plan to one in the Mathematics program with the intention of pursuing graduate work. Over the past three years, the Mathematics program has found this strategy works for recruiting a diverse student cohort with the aptitude and interest in mathematics and engineering.

To retain and graduate students, faculty try to be meticulous advisors. Every semester, each major must meet with their academic advisor prior to enrollment in classes. The advisors carefully plan the sequence of courses so that the students can graduate at their desired date. After the student reaches 70 hours, the advisor and student must submit an Advisement Report (formerly called a degree audit) and a degree completion plan to the Registrar's Office. Free mathematics tutoring is available in the department for students that are struggling, even in upper-level courses. Many Mathematics upper-level majors earn work-study wages by working in the tutoring lab, a scenario that not only aids students financially but also enhances their mathematical skills.

The Mathematics faculty spend an enormous amount of time providing help sessions or working one-on-one with students during office hours. They also work with students who are dealing with personal problems or other issues that may prevent them from being successful. During the student's last year of undergraduate work, the faculty help the students get placed in a local school for the Master of Arts in Teaching (MAT) program or in a Mathematics graduate program. Even after graduation, the faculty often act as mentors for students in the MAT or another graduate program.

3. Provide the number of program graduates over the past three years.

The number of graduates in Mathematics remains close to 4 students per year, with a tenyear average of 4.0 graduates per year. Over the last three years, ten students have graduated, even though the COVID-19 pandemic severely impacted enrollment.

| Table 11. Mathema | 3-year | | | | |
|-------------------|--------|------|------|-------|------|
| Year | 2019 | 2020 | 2021 | Total | mean |
| # Graduates | 3 | 3 | 4 | 10 | 3.33 |

Program Assessment

1. Describe the program assessment process and provide outcomes data (standardized entrance/placement test results, exit test results, etc.).

Our program undergoes an annual process whereby faculty assess the program on the basis of student learning outcomes and how those learning outcomes relate to the mission of the University. Two of the courses in the Mathematics program, Calculus II and Calculus III, use the American Association of Colleges and Universities Value Rubric in Critical Thinking to assess growth in reasoning skills for Mathematics majors. This growth is then reported to the Dean of Mathematical and Natural Sciences and included in the Annual Report. This report is submitted to the Vice Chancellor of Academic Affairs each August.

The School of Mathematics and Natural Sciences uses four primary means for assessment of students as they work through the program and as an annual assessment of the program itself.

First, students are evaluated by course examinations and projects to measure their learning. Exams cover material from the textbooks, instructor lecture, or activities completed during the course. In some classes, projects and/or homework files are opportunities for the students to display their understanding of the concepts taught in the course as part of the grading component.

Second, senior students often take a standardized exam involving mathematics. Most take the Praxis II Math exam which is specifically over mathematics content. Others may take the GRE. According to the UAM School of Education, all of the program's majors who chose the M.A.T. program at UAM passed their Praxis II Mathematics Content Exam for Secondary Education. All of the program's graduates who took the GRE as part of the application for graduate school successfully met the graduate program's requirement for admission.

Third, Mathematics Seminar, MATH 4711, is the capstone course required of all

Mathematics majors. One goal of this course is to validate the student's mathematics background through the development of a research presentation in which the student applies previous knowledge to a topic that wasn't specifically taught in the curriculum. The students in the course must author a research paper and perform an oral presentation, demonstrating knowledge and understanding in a specific area of mathematics. These students also present their work at a state, regional, or national meeting. In 2021, four students took Mathematics Seminar and all students performed easily demonstrated the desired learning outcomes.

Finally, our program is assessed by placement of the graduates. Most of our graduates are successful in finding teaching positions (which also implies they have sufficient Praxis II Math scores). Others have attended graduate programs in Mathematics, and a few have gone into private business or industrial positions. A graduate placement list is shown in Appendix G.

2. Describe program/major exit or capstone requirements.

MATH 4711, Mathematics Seminar, is the capstone course for the Mathematics major. This course provides students with an opportunity to use concepts previously learned in their curriculum and apply creativity and critical thinking to a project in the development of a paper and oral presentation. The objectives of the capstone course are:

- 1. To provide an overview of the mathematics the student has studied.
- 2. To improve the student's written and oral communication skills.
- 3. To acquaint the student with the basic library research techniques in mathematics.
- 4. To validate the student's mathematical background.

The course requires that each student conduct library research on a specific mathematics topic. The instructor must approve the chosen topic. The student should search through the mathematics literature and gain detailed knowledge of the topic. The student is required to submit a word-processed report with references, and to give a thirty-to-fifty-minute oral presentation on the topic. By going through this, the student obtains experiences that better enable her or him to enter the job force with confidence; and to demonstrate higher level communication and mathematics skills. The grade awarded is based on the student's ability to organize vital information, provide adequate coverage of a topic, and to complete a written report and an oral presentation at a regional, state, or national meeting.

3. Provide information on how teaching is evaluated, the use of student evaluations, and how results have affected the curriculum.

Teaching evaluation is one of the main components of the faculty evaluation process. This

is done by classroom observation by the Dean of the School of Mathematical and Natural Sciences and/or peer faculty, and by student evaluations.

The classroom observance portion of the evaluation process focuses on faculty's preparation and organization in the classroom, knowledge and presentation of the content, and communication and interpersonal relationship skills. This evaluation gives the reviewer a chance to provide constructive criticism on teaching performance and suggest possible improvements. Please refer to Appendix H for the Classroom Visitation Form.

Student evaluations are distributed via Blackboard for all classes (taught by full-time, adjunct and part-time faculty) around the twelfth week of each semester. These evaluations are anonymous and ask the student to provide both qualitative and quantitative analysis of their instructor and the specific course taken during that semester. This information is returned to the individual faculty member after final grades for that semester have been finalized and after being perused by the Dean.

Quantitative questions include the following:

The student's average G.P.A.

Number of times the student was absent from class

How much the student studied test material throughout the semester

The grade the student expected to get from the class

The interest the student had for the subject before and after taking the class

Specifics about the course and the instructor include:

How well the information is explained in class

Presentation style

The use of teaching aids

Preparation for class

Knowledge of the subject

Other information comes from questions related to the overall effectiveness of the professor, including their concern for the student, their capacity to lead class discussions and the type of feedback provided on the assignments when the assignments are returned to the student. This information is then used by the individual faculty member to continually improve his/her course syllabi and expectations to better meet the needs of the student without compromising the standards held for class assignments/tests.

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

As stated earlier in discussion of Goals, Objectives, and Activities of the program, graduates of the Mathematics program typically enter teaching programs, positions in industry, or graduate school.

Arkansas has experienced steady population growth, and this growth has led to continued demand for secondary school teachers. Although the population of southeastern Arkansas has not grown as much as the rest of the state, demand for mathematics teachers remains

high. Every school district in the southeastern part of the state qualifies as a High-Needs District based on criteria established by the National Science Foundation. School districts throughout the region regularly solicit the UAM School of Education and the Dean of Math and Sciences for possible applicants. Many graduates of the UAM Mathematics program have entered M.A.T. programs (including the one at UAM), and almost without exception have a job waiting upon completion of the program. In 2023, a new degree option in the Mathematics program will be available for majors interested in teaching secondary math. This option is designed to fill a need of our regional public schools for the staffing of secondary math teachers who are knowledgeable about their content and pedagogy as well as being prepared to pass their Praxis Mathematics Content Knowledge (5161) exam.

The Mathematics data science option was added in 2020. This option to the program prepares students to move into local industry and gives them the mathematics and programming knowledge needed to further their professional growth in the data science and analysis sector. Demand remains high for such individuals and is expected to increase over the next five years. The recent (July 2021) Arkansas Economic Recovery Strategy Report highlighted the need for increasing the number of Mathematics bachelor's degrees in Arkansas as well as the need for state leaders to attract talent in data science and STEM research. In 2022, the Arkansas Division of Workforce Services reported the occupation of data analyst as one of the "Top 10 Fastest Growth" occupations in every region in Arkansas.

The Mathematics program provides the mathematics educators surrounding school districts are in critical need of, the data science analysts and strategists who are needed for our state's economic recovery, and the researchers required to help guide innovation. Over the past decade, several of the program's graduates completed their Master of Science degree and moved into positions in industry and higher education. All of the program's graduates who took a GRE exam for admission into a graduate program successfully met the program's admission standards. A graduate placement list is shown in Appendix G which documents market demand for graduates of the program.

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

Appendix G 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 Mathematics program prepares graduates to meet the needs of the local, regional, and state industries. The program educates the mathematics teachers for the surrounding school districts, the data science analysts and strategists who are needed for our state's economic development, and the researchers who guide innovation. Our graduates are successful in finding teaching positions, data analyst and scientist positions, completing graduate school in order to work in STEM research or academia, and building the local economy through the establishment of small businesses.

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 homework and prepare for exams.
- All faculty provide help sessions prior to each exam in their courses.
- Faculty write practice exams for students in preparation for exams.
- The math faculty have written five workbooks that are currently used in Introduction to Algebra, Intermediate Algebra, College Algebra, Trigonometry and Calculus I. 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-onone 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 overall.
- Mathematics faculty often provide help sessions for the students taking admissions exams, such as the Pharmacy College Admissions Test (PCAT) or the GRE.
- The Mathematics faculty are involved with, and currently direct, the Southeast Arkansas Regional Science Fair and Regional Mathematics competition.
- Many faculty members closely follow the trends in marketability of the degree and student needs in a changing job market. This close monitoring instigated the recent changes in the degree.
- Mathematics faculty are determined to increase the diversity of the student population in the Mathematics program.
- Most importantly, the faculty gladly work 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.

The strong content knowledge, willingness to adapt to changing situations, and ability to collaborate with other programs in the School of Mathematics and Natural Sciences are further strengths of the mathematics program. It is quite common for faculty from each discipline to work together in curriculum design, 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.

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

The number of students majoring in Mathematics needs to increase. We averaged 4 graduates per year pre-COVID-19 and 3 per year during COVID-19. Over the last decade, an occasional good year put us above the viability line, and a bad year dropped us below it. In 2020, we added the Data Science Option of the Mathematics major to better fit student needs and in hopes that it would attract more students to that major, possibly even some CIS majors wanting to double major. It is due to the Data Science Option that we maintained graduates during the COVID-19 pandemic. While the number of freshmen entering our degree increased in 2022, we still need to recruit more potential students into the major.

In addition to recruiting more students into the Mathematics program, the department needs to increase the diversity of the student demographics in the major.

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 who will enroll in the Secondary Mathematics option need training on smart boards, PrometheanTM display systems with student feedback capability, and other high-tech hardware and software often used in area schools. Our students need to master this technology prior to entering the classroom. We have particularly good technology in our computer/tutoring lab but need a dedicated classroom/lab for our Data Science option majors. Scheduling conflicts for computer labs in other buildings often mean that we don't get to use the lab during class time.

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. Up until 2018, the curriculum was very stable with no major curriculum changes. In 2018, the Mathematics program completed an informal survey of its alumni on courses needed for future and current occupations. Discussions were held with current and prospective majors about expectations of employment after graduation, student interests, and potential changes to the modality of courses. Research was conducted on current trends in undergraduate mathematics and predicted changes in careers of mathematics majors. The faculty started developing program options in 2018 that addressed the trends noted in the analysis of the survey. One degree option was approved and added by Fall 2020. For program options that took longer to implement, upper-level courses were updated to better reflect developments in academia and flexibility in program electives were added to the traditional Mathematics degree. The combination of these curriculum changes helped contribute to a renewed interest in the program by offering degree options that students perceived as a good return on investment, strengthened modern content knowledge of the program graduates, and gave students more flexible methods to attend classes.

In 2020, the Mathematics data science option was added to the Mathematics degree to provide the mathematics and programming knowledge needed for program graduates. The degree option combined a focus on applied mathematics, statistics, and computer programming languages which the traditional major lacked. When possible, courses that overlapped with the traditional Mathematics major were tweaked to include applications, group-based discovery of mathematical concepts, and analysis. Special topics worked into the curriculum included team-based projects and presentations to help students learn to navigate collaborative tasks.

The courses required in the traditional Mathematics program were also modified. Trigonometry was moved into a more prominent position in the course sequence. Prerequisites were added to better prepare majors for the material covered in upper-level courses. Two courses were added to the major requirements, Introduction to Mathematical Reasoning and Introduction to Statistics, and one course, Python Programming, was added as an option in the supportive requirements. Introduction to Mathematical Reasoning fulfills the need of added instruction in the rigor of mathematical proofs, methods of construction of proofs and analysis of faulty lines of reasoning. In the traditional major, the course is a prerequisite for the upper-level proof-based courses – namely Number Theory, Abstract Algebra, College Geometry, and Linear Algebra. In the degree options of data science and secondary mathematics, the course is included so students can learn the necessary skills to analyze mathematical arguments throughout their upper-level requirements. Introduction to Statistics covers common statistical methods for analysis of data used in the sciences. For students in the traditional major or data science option, Introduction to Statistics provides the pre-requisite knowledge required for successful completion of the required upper-level course Probability and Statistics. The Secondary Mathematics option does not require Probability and Statistics, so Introduction to Statistics provides the exposure and proficiency requirements of data analysis required in secondary Mathematics occupations. Python Programming was added as an option in the supportive programming requirements of the traditional major and data science option. Python is a commonly used programming language in data science and used in the employment of statistical methods, numerical analysis, and mathematical modeling in STEM research. Finally, Advanced Calculus was removed as a requirement for the traditional degree due much of the material moving to the Calculus sequence.

In the past two years, the program has moved to a co-requisite model for general education courses. This model gives the students the shortest plausible pathway to completing required general education math courses. The move started with pilot courses for an academic year, and then catalog courses were added in 2020. Appendix I details the criteria for placement of students in remedial, co-requisite, or general education mathematics courses.

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

The Mathematics program has several improvements planned.

In 2023, a new degree option in the Mathematics program will be available for majors interested in teaching secondary math. This option is designed to fill a need of our regional public schools for the staffing of secondary math teachers who are knowledgeable about their content and pedagogy as well as being prepared to pass their Praxis Mathematics Content Knowledge (5161) exam. With this new option, all of the required and supportive courses are focused on mastery of content necessary for teaching secondary mathematics as well as methods in instruction that are relevant to secondary mathematics. The Secondary Mathematics option, as designed, utilizes current program faculty and learning delivery technology provided by the university. It should not incur any additional cost.

Additionally, the Mathematics program is developing a double-major with the School of Education. This double-major will allow students interested in the Secondary Mathematics option to obtain their degree in a distance learning setting. The implementation of this possible double-major could take 2 to 4 years. Cost for faculty training on best practices for distance learning will be covered by existing professional development funds. The degree would utilize existing technology infrastructure to deliver courses.

The Mathematics program plans to do a better job at promoting our major and its options. The graduates from the program 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. More effort is going to be placed on keeping contact with our graduates. Re-establishing the department newsletter is a priority for the School of Math and Sciences. Establishing a digital newsletter and promoting it on social media is expected to be done very quickly at extremely low costs.

More effort must be placed on recruiting exceptional students into the Mathematics program. 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 Secondary Mathematics option will have distance learning and potential students into the major can be drawn from other regions of Arkansas and border regions. The money spent can vary, depending on what we want to do to get into other areas. Promoting via UAM's social media presence would be the most cost-effective method.

Appendix A – Mathematics Eight Semester Plans

Bachelor of Science Degree in Mathematics

8 Semester Program Total Hours 120

First Semester (15 hours)Credit Hrs. 1013 Composition I (ACTS # ENGL 1013)......3 **ENGL** 2343 MATH Introduction to Statistics......3 MATH 1033 Trigonometry (ACTS # MATH 1203) 3 Gen. Ed. Fine Arts Appreciation Requirement 3 Second Semester (15 hours)......Credit Hrs. Composition II (ACTS # ENGL 1023)......3 **ENGL** 1023 2255 Calculus I...... 5 MATH Introduction to Math Reasoning (Spring Odd) OR MATH 2333 CIS 2003 Programming Logic and Design (Spring Even)........... 3 Gen. Ed. American History or Government...... 3 Gen. Ed. Communication Requirement....... 3 Third Semester (15 hours)Credit Hrs. CHEM or PHYS supportive requirement w/Lab....... 4 MATH 3495 Fourth Semester (15 hours)Credit Hrs. MATH CHEM or PHYS Supportive Requirement w/Lab...... 4 MATH 2333 Introduction of Math Reasoning (Spring Odd) or CIS 2003 Programming Logic and Design (Spring Even)........... 3

NOTE: All first-time freshmen are required to successfully complete an orientation course.

| Fifth Se | mester (| 15 hours)Credit Hrs. |
|-------------------------|--------------|--|
| MATH | 3403 | Probability & Statistics (fall, odd years) or |
| MATH | 3423 | College Geometry (fall, even years)3 |
| MATH | 3453 | Abstract Algebra (fall, odd years) or |
| MATH | 3413 | Number Theory (fall, even years)3 |
| | | Electives6 |
| | | Upper Level Electives3 |
| Sixth So | emester (| (15 hours)Credit Hrs. |
| MATH | 3463 | Linear Algebra (spring, even years) or |
| MATH | 3523 | Differential Equations (spring, odd years)3 |
| CIS | 3133 | Python Programming (spring, odd years) OR |
| | | MATH Upper Level elective (spring, even years) 3 |
| | | Electives3 |
| | | Upper Level Electives6 |
| Seventh MATH MATH | 3403 3423 | er (15 hours) Credit Hrs. Probability & Statistics (fall, odd years) or College Geometry (fall, even years) |
| MATH | 3453 | Abstract Algebra (fall, odd years) or |
| MATH | 3413 | Number Theory (fall, even years)3 |
| WATTI | 3713 | Electives |
| | | Upper Level Electives6 |
| Eighth S | Semester | (15-17 hours)Credit Hrs. |
| MATH | 4711 | Mathematics Seminar1 |
| MATH | 3463 | Linear Algebra (spring, even years) or |
| MATH | 3523 | Differential Equations (spring, odd years)3 |
| CIS | 3133 | Python Programming (spring, odd years) OR |
| | | MATH Upper Level Elective (spring, even years)3 |
| | | Upper Level Electives to reach 40 hours3-6 |

Electives as needed to reach 120 hours.....2-5

Bachelor of Science Degree in Mathematics (Data Science Option)

8 Semester Program Total Hours 120

| First Seme | ster (1 | 5 hours)Credit Hr | 'S. |
|-------------------|------------|--|-----|
| CIS | 1193 | PC Hardware/Software Maintenance | 3 |
| ENGL | 1013 | Composition I | 3 |
| MATH | 2343 | Introduction to Statistics | |
| MATH | 1033 | Trigonometry (or Gen Ed course if waived by dept | |
| | | exam) | |
| Gen. Ed. Comm | nunication | n Requirement | |
| Second Se | meste | r (17 hours)Credit Hr | 2 |
| CIS | 2203 | Programming Logic & Design | |
| CIS | 2223 | Microcomputer Applications | |
| FNGL | 1023 | Composition II | |
| MATH | 2255 | Calculus | |
| MATH | 2233 | Introduction of Math Reasoning (Spring Odd) OR | 0 |
| | | Govt. (Spring Even) | 3 |
| doii. Lu 0.0. 111 | otory or v | JOVE (Opting Evol) | 0 |
| Third Sem | ester (| 15 hours)Credit Hr | 'S. |
| CIS* | 3423 | • | |
| MATH | 3495 | Calculus II | |
| Gen. Ed. Scienc | | ement with Lab | |
| | - | irement | |
| | | | |
| Fourth Ser | nester | (15 hours)Credit Hr | ʻS. |
| CIS | 3103 | • | |
| MATH | 3545 | Calculus III | |
| MATH | 2233 | Introduction of Math Reasoning (Spring Odd) OR | |
| Gen. Ed. Histor | v or Govt | (Spring Even) | 3 |
| | | ement with lab | |
| | • | g Options exist, such as CIS 3243 Introduction to Ja | |
| | | | |

NOTE: All first-time freshmen are required to successfully complete an orientation course.

| Fifth Seme | ester (1 | 5 hours)Credit Hrs. |
|-----------------|-----------|--|
| MATH | 3403 | Probability & Statistics (fall, odd years) OR |
| MATH | | Math Upper Level Elective (fall, even years)3 |
| CIS* | 3443 | Object Oriented Programming Language3 |
| Gen. Ed. Huma | nities Re | quirement3 |
| Gen Ed Social | Science F | Requirement3 |
| Elective | | 3 |
| | | |
| Sixth Sem | ester (| 15 hours)Credit Hrs. |
| MATH | 3463 | Linear Algebra (spring, even years) OR |
| MATH | 3523 | Differential Equations (spring, odd years)3 |
| MATH | | Math Upper Level Elective3 |
| MATH | 3513 | Discrete Mathematics (spring even years) OR |
| CIS | 3133 | Python Programming (spring odd years)3 |
| CIS | 3123 | Linux Operating Systems (spring even years)3 |
| CIS | 3523 | System Analysis and Design3 |
| | | |
| Seventh So | emeste | er (15 hours)Credit Hrs. |
| MATH | 3403 | Probability & Statistics (fall, odd years) OR |
| MATH | | Math Upper Level Elective (fall, even years)3 |
| CIS | 4623 | Database Management Systems3 |
| Gen Ed Social | Science F | Requirement3 |
| Electives | | 6 |
| | | |
| Eighth Sen | nester | (13-16 hours)Credit Hrs. |
| MATH | 4711 | Mathematics Seminar1 |
| MATH | 3463 | Linear Algebra (spring, even years) OR |
| MATH | 3523 | Differential Equations (spring, odd years)3 |
| MATH | 3513 | Discrete Mathematics (spring even years) OR |
| CIS | 3133 | Python Programming (spring odd years)3 |
| CIS | 4503 | Data Communications and Networking3 |
| Electives as ne | eded to r | reach 40 hours upper level and 120 hours total 3-6 |
| | | |

Appendix B – UAM General Education Requirements

| | The | following | g General | Edu | cation | req | uiren | nents | apply | / to | all |
|----|---|-----------|------------|--------|----------|--------|-------|--------|--------|---------|------|
| ba | ccala | ureate de | grees. The | se re | quireme | ents | exist | to en | sure t | hat e | ach |
| st | udent | 's progra | m contains | s a si | gnificar | nt lil | oeral | arts e | empha | asis. I | t is |
| ех | pecte | d that | students | will | comple | ete | the | Gene | ral E | duca | tion |
| re | requirements within their first 60 hours. | | | | | | | | | | |

Total Hours 35

Composition: 6 Credit Hours

| ENGL | 1013 | Composition I and |
|-------|------|-----------------------|
| ENGL | 1023 | Composition II |
| | | or |
| ENIOL | 1000 | Hanara Composition La |

1033 Honors Composition I and ENGL **ENGL** 1043 Honors Composition II

Communication: 3 Credit Hours

Choose one of the following:

| CUMM | 1023 | Public Speaking |
|------|------|----------------------------------|
| COMM | 2283 | Business and Professional Speech |
| COMM | 2203 | Interpersonal Communication |
| NRM | 2063 | Natural Resources Communication |

Fine Arts: 3 Credit Hours

Choose one of the following:

| ART | 1053 | Art Appreciation |
|-----|------|------------------------|
| FA | 1013 | Fine Arts Appreciation |
| FA | 1023 | Film Appreciation |
| MUS | 1113 | Music Appreciation |

Humanities: 3 Credit Hours

Any literature course Any philosophy course Any foreign language course

Mathematics: 3 Credit Hours

Any MATH 1000-level or above

Social Sciences: 9 Credit Hours

Choose one of the following (3 hours):

| HIST | 2213 | American History I |
|------|------|---------------------|
| HIST | 2223 | American History II |
| 0001 | 0040 | |

2213 American National Government PSCI

Choose two courses from two different disciplines from the following (6 hours):

ANTH 2203 Cultural Anthropology

| ANTH | 2213 | North American Indians |
|------|------|-------------------------------------|
| ANTH | 2223 | World Prehistory |
| ANTH | 2233 | Arkansas Regional Archeology |
| ANTH | 2243 | Sex, Gender, and Culture |
| ANTH | 2253 | Intro to Archeology |
| CJ | 1013 | Introduction to Criminal Justice |
| CJ | 2293 | Law and Society (same as PSCI 2293) |
| ECON | 2203 | Principles of Macroeconomics |
| ECON | 2213 | Principles of Microeconomics |
| GEOG | 2213 | Geography I |
| GEOG | 2223 | Geography II |
| HIST | 1013 | World History to 1500 |
| HIST | 1023 | World History Since 1500 |
| PSCI | 2223 | State Government Arkansas |
| PSCI | 2233 | Comparative Politics |
| PSCI | 2293 | Law and Society (same as CJ 2293) |
| PSCI | 2353 | World Politics |
| PSY | 1013 | Introduction to Psychology |
| SOC | 2213 | Introduction to Sociology |
| SOC | 2223 | Social Problems |
| SWK | 2123 | Introduction to Social Work |

Science with labs: 8 Credit Hours

Choose two 3-hour lecture courses with associated 1-hour labs or two 4-hour courses with integrated labs chosen from the following disciplines:

Biological Science Earth Science Chemistry Physics

Total Hours 35

NOTE: If an Arkansas Course Transfer (ACTS) equivalency exists, it is indicated on the course description or you may visit: https://adhe.edu/students-parents/transfer-info-for-students

Restrictions

The following restrictions apply to the General Education program:

- 1. Courses from the major of a student will be counted for General Education elective credit only in the Communications, Fine Arts, and the Mathematics categories. When supportive requirements exist for a given major but are drawn from a discipline other than the major, they may be used to meet the general education requirements.
- 2. In addition to the courses in the major curriculum and its supportive requirements, a major may require specific courses within the General Education elective options.

Appendix C – Math Major and Minor Requirements

Mathematics Major, Bachelor of Science

This major does not require a minor; however, students must complete 40 credit hours at the 3000-4000 level to be eligible for this degree.

Major Requirements: 43 hours

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MATH 2233 Introduction to Mathematical Reasoning
```

MATH 2343 Introduction to Statistics

MATH 2255 Calculus I

MATH 3403 Probability and Statistics

MATH 3453 Abstract Algebra

MATH 3463 Linear Algebra

MATH 3495 Calculus II

MATH 3523 Differential Equations

MATH 3545 Calculus III

MATH 4711 Mathematics Seminar

Mathematics Electives: 9 hours at the 3000-4000 level (except courses specifically excluded)

Supportive Requirements: 17 hours

| THE TOSS THE CHOMEN'S OF TUBBLISHED CONTINUES PROCESSION OF THE | MATH | 1033 | Trigonometry or 1 | Passing departmental | placement exam |
|---|------|------|-------------------|----------------------|----------------|
|---|------|------|-------------------|----------------------|----------------|

CIS 2203 Programming Logic and Design

One of the following courses:

| CIS | 3133 | Python Programming | g |
|-----|------|--------------------|---|
|-----|------|--------------------|---|

CIS 3243 Introduction to Java

CIS 3423 COBOL

CIS 3433 Introduction to C# Programming

CIS 3443 Object-Oriented Programming Languages

Eight hours from the following courses:

CHEM 1103 General Chemistry I and

CHEM 1121 General Chemistry I Laboratory

CHEM 1113 General Chemistry II and

CHEM 1131 General Chemistry II Laboratory

PHYS 2203 College Physics I and

PHYS 2231 College and University Physics I Laboratory

PHYS 2213 College Physics II and

PHYS 2241 College and University Physics II Laboratory

PHYS 2313 University Physics I and

PHYS 2231 College and University Physics I Laboratory

PHYS 2323 University Physics II and

PHYS 2241 College and University Physics II Laboratory

Note: Students may use College Physics or University Physics but not both. A student who plans to teach should use MATH 3233 History of Mathematics, MATH 3423 College Geometry, and MATH 3513 Discrete Mathematics

Mathematics Major, Bachelor of Science, Data Science Option

This major does not require a minor; however, students must complete 40 credit hours at the 3000-4000 level to be eligible for this degree.

Major Requirements: 43 hours

```
MATH 1033 Trigonometry
MATH 2233 Introduction to Mathematical Reasoning
MATH 2343 Introduction to Statistics
MATH 2255 Calculus I
MATH 3403 Probability and Statistics
MATH 3463 Linear Algebra
MATH 3495 Calculus II
MATH 3523 Differential Equations
MATH 3545 Calculus III
MATH 4711 Mathematics Seminar
```

Mathematics Electives: 9 hours at the 3000-4000 level (except courses specifically excluded)

Supportive Requirements: 33 hours

| CIS | 1193 | PC Ha | rdware and Software Maintenance |
|--------|------------|----------|---------------------------------|
| CIS | 2203 | Progra | mming Logic and Design |
| CIS | 2223 | Micro | computer Applications |
| CIS | 3123 | Linux | Operating Systems |
| CIS | 3103 | Advan | ced Microcomputer Applications |
| CIS | 3133 | Pythor | n Programming |
| CIS | 3523 | Systen | n Analysis and Design |
| CIS | 4503 | Data C | Communications and Networking |
| CIS | 4623 | Databa | ase Management Systems |
| Pick 2 | of the fol | lowing o | ptions: |
| | CIS | 3243 | Introduction to Java |
| | CIS | 3423 | COBOL |
| | CIS | 3443 | Object-Oriented Programming |
| | | | |

Mathematics Minor

Minor Requirements 24 hours

MATH 2255 Calculus I MATH 3495 Calculus II MATH 3545 Calculus III

Mathematics Electives: 9 hours at the 3000-4000 level (except courses specifically excluded).

Appendix D – Mathematics Syllabi

| 1 1 1 10 11 1 . | |
|----------------------------|-----------------------------------|
| Included Syllabi: | |
| MATH 143 | Introduction to Algebra |
| MATH 183 | Intermediate Algebra |
| MATH 1103 & | Quantitative Literacy with Review |
| MATH 102 | and Lab |
| MATH 1143 | College Algebra with Review |
| MATH 1033 | Trigonometry |
| MATH 2333 | Introduction to Math Reasoning |
| MATH 2343 | Introduction to Statistics |
| MATH 2255 | Calculus I |
| MATH 3403 | Probability and Statistics |
| MATH 3413 | Number Theory |
| MATH 3423 | College Geometry |
| MATH 3453 | Abstract Algebra |
| MATH 3463 | Linear Algebra |
| MATH 3495 | Calculus II |
| MATH 3513 | Discrete Mathematics |
| MATH 3533 | Differential Equations |
| MATH 3545 | Calculus III |
| MATH 4711 | Mathematics Seminar |
| MATH 465V | Mathematics Reading and Research |
| MAED 2443 | Fundamentals of Geometry |
| MAED 3553 | Number Systems |
| MAED 3553 (online section) | Number Systems |

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICS AND NATURAL SCIENCES COURSE SYLLABUS MATH 143 - 05

FALL 2022 - TH 11:10 a.m. Science Center: A - 30

Instructor Name: ALAN B. GOODDING Instructor Location of Office: Science Center B-16

My office is <u>not</u> the classroom we meet Instructor Phone: 870-460-1616. Instructor Email Address: goodding@uamont.edu Office Hours:

Monday 12:00noon - 2:00

ATuesday 7am 7:30am and 12:30pm - 2:30

Wednesday 12:00noon - 2:00

Thursday 7am - 9:30am and 12:30pm - 2:30

Friday 7:00am – 9:00am

Course Title and Credit Hours: Math 143, Introduction to Algebra, 3 credit hours, (No ACTS Equivalent)

Prerequisites: NONE

Required textbooks, workbooks, supplementary materials: Introductory Algebra Workbook and Study guide Prepared by F. Abedi/A. Goodding A Myope Math account. ! FREE!

Course Name: ..143-05 TH Fall 2022

Course Id: 153442
The enrollment key: UAM

A graphing calculator. A TI-83 or TI-84 graphing calculator is strongly recommended as these are the calculators the instructor will be using. Calculators such as the TI-89 that have a CAS system will not be allowed in this course.

Online bookstore: **UAM Bookstore**

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description:

This course is a review of basic arithmetic operations and algebraic operations. Topics covered include the arithmetic of fractions and decimals, solving equations using algebraic methods, algebraic manipulations of polynomials and linear equations. This course cannot be used to satisfy General Education requirements or for credit toward a Mathematics major or minor.

Student Learning Outcomes:

This course is a preparatory course for other mathematics courses and has the dual focus of presenting the necessary algebraic material as well as nurturing problem solving skills.

At the conclusion of the course, you should be able to:

Perform elementary mathematical operations with real numbers.

Algebraically solve equations in one variable.

Apply problem solving skills to questions given in narrative form.

Algebraically solve linear equations in one variable.

Graph and write linear equations.

Perform algebraic manipulations on polynomials.

Course Assignments/Assessments:

There are four **(4) chapter exams**. These exams will be a combination of multiple choice and show-your-work questions. There is **one final exam**. The final will be cumulative.

Homework will be assigned through MyOpenMath

There will be random quizzes given either in class (on paper) or online.

The grade for the course will be a total point as follows: 100 points for each exam, Homework/Quiz (average) 100 points, Final exam 100 points. Total points available in class is 600. There will be two categories for grades: 1, Tests and 2, HwQ. The Test category will be worth 83.3% of your final grade and HwQ will be worth 16.7% of your final grade.

The grade on the final exam will replace your lowest chapter exam grade if it is higher. If you miss one (1) chapter exam, the grade on the final exam will substitute for that missed exam but will not replace any other grade. If you miss more than one (1) chapter exam, the grade on the final will only substitute for one of the missed exams, you will receive a 0 for all the others.

Grades will be rounded as follows: decimals less than 0.5 will remain the same, decimals greater than or equal to 0.5 will be rounded up. i.e., 80.495 = 80%, and 80.501 = 81%

The instructor reserves the right to require a monitored homework assessment for any student whose test average is less than 70% and whose homework grade is 80% or higher.

Make up Policy:

<u>No</u> test will be given after the assigned test date. If you know you will be missing a test you may arrange to take it early, or let the final replace the zero (however, the final can only replace one zero, so this will only work for one missed test). Homework will not be opened after due dates. If a class session is missed, it is the student's responsibility to get the missed notes from a peer.

Special Dates of Concern:

Fall 2022

August 17 (Wed) - First day of classes.

August 19 (Fri) - Last day to register or add classes.

August 23 (Tues) - Tuition and fees due by 3:30 p.m. Students will be dropped at the end of the day unless payment or other payment arrangements have been made.

September 5 (Mon) - Labor Day Holiday. Offices and classes closed.

October 26 (Wed) - Last day to drop a session 1 class or withdraw from the term Grade(s) will be W. October 31 (Mon) - Registration for Spring begins.

November 11 (Fri) - Registration for Spring ends. Last day to drop session 8W2 classes. The grade will be W.

November 21-25 (Mon-Fri) - Fall Break. Classes closed.

November 24-25 (Thurs-Fri) - Thanksgiving Holiday. Offices closed.

December 2 (Fri) - Last day of classes for sessions 1 and 8W2.

December 5-8 (Mon-Thurs.) - Final exam period.

Introductory Algebra Final Exam: Monday December 5^{the} 8:00am - 10:00am *location to be announced.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

When classes are meeting face to face, I expect you to be in class. If we are meeting remotely, I expect you to continue with lessons. It has been shown that the more quality participation a student has, the better the grade/understanding that student leaves with.

The use of "MyOpenMath is not optional. Homework will not be printed out for students to complete. **Homework will have due dates.**

If tardiness becomes an issue (inability to enter the room without causing an interruption). The door to the classroom will be shut/locked 10 minutes after the start of class. Do not enter after this time.

If you score below 40% on the final exam, you will automatically fail the course. If you score less than a 50% on the final exam, the highest grade you may receive is a "D". This policy supersedes your other grades in the course. The percentage score on the final exam may be used to replace your lowest test score.

Students will receive a zero on any assignment in which cheating occurs. Other actions may be taken as appropriate. Absolutely no cell phones during class. You will be asked to leave if your phone becomes an issue. If asked to leave an unexcused absence will be issued for the day's activities (test, notes, and quizzes). All cell phones should be turned off in class. You are not allowed to wear earbuds in class. You are not allowed to use any device in class which uses earbuds. If I must ask you to turn off any such device more than once, you may be dismissed from the class. The following action is prohibited under the student conduct Code; Disorderly conduct — any behavior which disrupts the regular or normal functions of the University community, including behavior which breaches the peace or violates the rights of others. On test days: You will be allowed to start all exams as early as I arrive at the class and get organized. If you are late for an exam, you will only be allowed to take the exam if another student has not completed and turned in their exam. You cannot leave the classroom for any reason after starting the exam. (i.e.. Bathroom)

Midterm Grade Policy:

Mid-semester grades are unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student's lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Work Required:

Academic Engagement:
40 hours -- Attending class
5 hours -- Take quizzes and exams 2 hours -- Final exam
47 hours -- Total

Preparation: (outside class) 90 hours – Homework 10 hours – Prepare for exams 100 hours – Total

Overall Total Obligation: Should be at least 147 hours for a 3-credit course per semester

Explanation of Grading Policy:

Grade Assignment:

Grading Scale:

A = 90% - 100%

B= 80% — 89%

C= 70%— 79% A grade of "C" or better is needed to progress in the math sequence.

D= 55% — 69%

F= 59% and below

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1663. Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656 Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105

Mailing Address: P.O. Box 747, McGehee, AR 71654 Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All Tutoring Appointments for Fall will be held by appointment only. Please contact the office for more information.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with My Open Math is available in tutoring. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

Classroom Behavior/Disruption Policy

Students will not disturb normal classroom procedures and instruction. Disruptive conduct includes but is not limited to violent, noisy actions, profane or obscene language, intoxication, verbal abuse/slander, quarreling, fighting, threats to safety to oneself or others and failure to comply with the directions of a university official (reference UAM Student Handbook). A faculty member may, at his or her discretion, dismiss a disruptive student from the classroom for the balance of the class period and, at the faculty member's discretion, consider

the missed class time as an unexcused absence.

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University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

Course Calander: will be issued in paper form and can be found on the student's blackboard.

To set up your MyopenMath account please do the following:

Go to www.myopenmath.com

On the left side of the homepage, you will find a box with log in boxes for username and password. Under the log in button is a choice to register as a new student. If you are new to myopenmath, click here.

Student signup page: fill in the fields with appropriate information. Please use your name as it appears on your UAM registration. I do not need to hunt down "big sexy". You do not have to use your UAM email, but it is a good idea.

The Course ID and Enrollment Key can be found on the first page of this syllabus.

If you already have a myopenmath account, log in using your credentials and locate "add a class" at the top of the page and click into it. The Course ID and Enrollment Key can be found on the first page of this syllabus.

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICS AND NATURAL SCIENCES COURSE SYLLABUS MATH 183 - 05

Fall 2022 - MWF 10:10 a.m. SC:C-19

Instructor Name: ALAN B. GOODDING Instructor Location of Office: Science Center B-16

My office is not the classroom we meet Instructor Phone: 870-460-1616.

Instructor Email Address: goodding@uamont.edu

Office Hours:

Monday 12:00noon – 2:00

Tuesday 7am - 9:30am and 12:30pm - 2:30

Awwednesdaynep2:00noon - 2:00

Thursday 7am - 9:30am and 12:30pm - 2:30

Friday 7:00am – 9:00am

Course Title and Credit Hours: Math 183, Intermediate Algebra, 3 credit hours.

Prerequisites: 1- A score of 16-18 on mathematics portion of the ACT exam, or 2- A compass score of 35-40, or 3- A grade of "C" or better in Math 143, or 4- passing the Intermediate Algebra placement test offered by the School of Mathematical and Natural Sciences.

Required textbooks, workbooks, supplementary materials:

Intermediate Algebra Workbook and Study Guide Prepared by H. Sayyar.

A MyOpenMath account. ! FREE! Instructions found at the end of syllabus.

Course Name: ..183-05 MWF Fall 2022

Course Id: 153445
The enrollment key: monticello

A graphing calculator. A TI-83 or TI-84 graphing calculator is strongly recommended as these are the calculators the instructor will be using. Calculators such as the TI-89 that have a CAS system will not be allowed in this course.

Online bookstore: **UAM Bookstore**

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description:

This course is a review of basic arithmetic operations and algebraic operations. Topics covered include the arithmetic of fractions and decimals, solving equations using algebraic methods, algebraic manipulations of polynomials and linear equations. This course cannot be used to satisfy General Education requirements or for credit toward a Mathematics major or minor.

Student Learning Outcomes:

This course is a preparatory course for other mathematics courses and has the dual focus of presenting the necessary algebraic material as sell as nurturing problem solving skills.

By the conclusion of the course you should be able to:

Perform elementary mathematical operations with real numbers.

Algebraically solve equations in one variable.

Apply problem solving skills to questions given in narrative form.

Algebraically solve linear equations in one variable.

Graph and write linear equations.

Perform algebraic manipulations on polynomials.

Course Assignments/Assessments:

There are **four (4) chapter exams**. These exams will be a combination of multiple choice and show-your-work questions.

There is **one final exam**. The final will be cumulative.

Homework will be assigned through MyOpenMath

There will be **random quizzes** given either in class (on paper) or online.

The grade for the course will be a total point as follows: Each exam 100 points each, Homework/Quizzes (average) 100 points, Final exam 100 points. If all 4-chapter exams are given, then the total points available will be 600 points. Categories will be assigned as follows: **Test 83% and HWandQ 17%**

The grade on the final exam will replace your lowest chapter exam grade provided that it is higher. If you miss one (1) chapter exam, the grade on the final exam will substitute for that missed exam, but will not replace any other grade. If you miss more than one (1) chapter exam, the grade on the final will only substitute for one of the missed exams, you will receive a 0 for all the others.

Grades will be rounded as follows: decimals less than 0.5 will remain the same, decimals greater than or equal to 0.5 will be rounded up. i.e. 80.495 = 80%, and 80.501 = 81%

The instructor reserves the right to require a monitored homework assessment for any student whose test average is less than 70% and whose homework grade is 80% or higher.

Make up Policy:

No test will be given after the assigned test date. If you know you will be missing a test you may come take it early, or let the final replace the zero (however, the final can only replace one zero, so this will only work for one missed test). Homework may not be made up. If a class session is missed, it is the student's responsibility to get the missed notes from a peer.

Special Dates of Concern:

FALL 2022

August 17 (Wed) - First day of classes.

August 19 (Fri) - Last day to register or add classes.

August 23 (Tues) - Tuition and fees due by 3:30 p.m. Students will be dropped at the end of the day unless payment or other payment arrangements have been made.

September 5 (Mon) - Labor Day Holiday. Offices and classes closed.

October 26 (Wed) - Last day to drop a session 1 class or withdraw from the term Grade(s) will be W. October 31 (Mon) - Registration for Spring begins.

November 11 (Fri) - Registration for Spring ends. Last day to drop session 8W2 classes. The grade will be W.

November 21-25 (Mon-Fri) - Fall Break. Classes closed.

November 24-25 (Thurs-Fri) - Thanksgiving Holiday. Offices closed.

December 2 (Fri) - Last day of classes for sessions 1 and 8W2.

December 5-8 (Mon-Thurs.) - Final exam period.

Intermediate Algebra Final Exam: Tuesday December 6th 8:00am - 10:00am *location to be announced.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

When classes are meeting face to face, I expect you to be in class. If we are meeting remotely, I expect you to continue with lessons. It has been shown, that the more quality participation a student has, the better the grade/understanding that student leaves with.

The use of "MyOpenMath / "OpenStax" is not optional. Homework will not be printed out for students to complete.

Homework has due dates.

If tardiness becomes an issue (inability to enter the room without causing an interruption). The door to the classroom will be shut/locked 10 minutes after the start of class. Do not enter after this time.

If you score below 40% on the final exam, you will automatically fail the course. If you score less than a 50% on the final exam, the highest grade you can receive is a "D". This policy supersedes your other grades in the course. The percentage score on the final exam may be used to replace your lowest test score.

Students will receive a zero on any assignment in which cheating occurs. Other actions may be taken as appropriate. Absolutely no cell phones during class. You will be asked to leave if your phone becomes an issue. If asked to leave an unexcused absence will be issued for the day's activities (test, notes, and quizzes). All cell phones should be turned off in class. You are not allowed to wear earbuds in class. You are not allowed to use any device in class which uses earbuds. If I have to ask you to turn off any such device more than once you may be dismissed from the class. The following action is prohibited under the student conduct Code; Disorderly conduct – any behavior which disrupts the regular or normal functions of the University community, including behavior which breaches the peace or violates the rights of others. On test days: You will be allowed to start any and all exams as early as I arrive to the class and get organized. If you are late for an exam, you will only be allowed to take the exam if another student has not completed and turned in their exam. You cannot leave the classroom for any reason after starting the exam. (ie. Bathroom)

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Work Required:

Academic Engagement:

40 hours -- Attending class

5 hours -- Take quizzes and exams 2 hours - Final exam

47 hours – Total

Preparation: (outside class) 90 hours – Homework 10 hours – Prepare for exams 100 hours – Total

Overall Total Obligation: Should be at least 147 hours for a 3 credit course per semester Explanation of Grading Policy:

Grade Assignment:

Grading Scale:

A = 88% - 100%

B = 77% - 87%

C = 65% - 76%

A grade of "C" or better is needed to progress in the math sequence.

D= 55% — 64%

F=54% and below

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1663. Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

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Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

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The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

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Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656 Email: whitingm@uamont.edu

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Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105

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Location: UAM College of Technology at Crossett Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All Tutoring Appointments for Fall will be held by appointment only. Please contact the office for more information.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with My Open Math is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

Classroom Behavior/Disruption Policy

Students will not disturb normal classroom procedures and instruction. Disruptive conduct includes but is not limited to violent, noisy actions, profane or obscene language, intoxication, verbal abuse/slander, quarreling, fighting, threats to safety to oneself or others and failure to comply with the directions of a university official (reference UAM Student Handbook). A faculty member may, at his or her discretion, dismiss a disruptive student from the classroom for the balance of the class period and, at the faculty member's discretion, consider the missed class time as an unexcused absence.

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g). Updated 01/06/2020

Course Calendar provided on paper and can be found on blackboard. To set up your MyopenMath account please do the following:

Go to www.myopenmath.com

On the left side of the homepage, you will find a box with log in boxes for username and password. Under the log in button is a choice to register as a new student, click it. If you are new to myopenmath, click here.

Student signup page: fill in the fields with appropriate information. Please use your name as it appears on your UAM registration. I do not need to hunt down "big sexy." You do not have to use your UAM email, but it is a good idea.

The Course ID and Enrollment Key can be found on the first page of this syllabus.

If you already have a myopenmath account, log in using your credentials and locate "add a class" at the top of the page and click into it. The Course ID and Enrollment Key can be found on the first page of this syllabus.

UNIVERSITY OF ARKANSAS AT MONTICELLO

SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES

MATH 1103 - LECTURE and MATH 102 - LAB

QUANTIATIVE LITERACY WITH REVIEW (FACE TO FACE) COURSE SYLLABUS

Fall 2022, MWF 10:10-11:00 and 11:10-12:00 S.C. A-30

Instructor Name: Laura Barton

Instructor Location of Office: Science Center B14

Instructor Phone: 870-460-1516

Instructor Email Address: bartonl@uamont.edu

Office Hours: MW 9-10am, 1-2pm

TTH 9-10am, 11-12:45pm

F 12-12:30pm

Other times by appointment.

Course Title and Credit Hours: MATH 1103, Quantitative Literacy with Review (Lecture)

(ACTS# MATH 1003), 3 hrs

MATH 102 – Quantitative Literacy with Review (Lab) (ACTS# MATH 1003), 0 hrs

Prerequisites: Passage of requirements to enroll in a MATH 1000 level class.

Required textbooks, workbooks, supplementary materials: (1) <u>Math in Society</u>, Lippman 2nd custom edition for UAM (please purchase at UAM bookstore) (2) a calculator with statistics capabilities. Instructor will use TI-84 in class for demonstration purposes. Learning the syntax of any other brand/type of calculator will be the responsibility of the student. Online bookstore: UAM Bookstore

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: This course is intended as a study of the techniques of problem solving, consumer mathematics, probability, analyzing data and statistics.

Student Learning Outcomes:

The overarching goal of Survey of Mathematics is to provide students with mathematical understandings and skills to be productive workers, discerning consumers, and informed citizens. Students will solve problems using mathematical reasoning involving logic, proportions, algebra, and relations. More specifically, student performances will include:

Identifying problem-solving strategies and applying them to contemporary everyday problems.

Analyzing reports from media to determine completeness and accuracy noting assumptions both stated and unstated.

Critiquing information for better understanding, completeness, and accuracy.

Course Assignments/Assessments: All exams and quizzes are closed book and will be given on campus if possible.

| Topics | Sections | Tentative Homework Assignments | Tentative Test Dates |
|---|------------|---|---------------------------------------|
| Review Topics | n/a | Review Topics Homework Assignments | n/a |
| Unit 1, Probability | §1.1 – 1.6 | 1.1 - 1.6 Homework Assignments | Test 1: Thurs/Fri Sept 15 or 16 |
| Unit 2: Statistics and Describing Data | §2.1 – 2.5 | 2.1 – 2.5 Homework Assignments | Test 2: Tues/Wed Oct 11 or 12 |
| Unit 3, Part 1: Growth Models | §3.1 – 3.3 | 3.1 – 3.3 Homework Assignments | Test 3: Fri/Mon, Oct 28 or 31 |
| Unit 3, Part 2: Consumer Finance as Growth Models | §3.4 – 3.7 | 3.4 – 3.7 Homework Assignments | Test 4: Wed, Nov 30 |
| Final Exam | Cumulative | Monday Dec 5 @ 8am ***will function as a make-up exam for 1 missed exam*** | |

Special Dates of Concern:

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Aug 17 (Wed) -First day of classes

Aug 19 (Fri) – Last day to register or add classes.

Sept 5 (Mon) – Labor Day Holiday – No classes

Aug 23 (Tues) – Tuition and fees due by 3:30 pm for all registered students.

Oct 26 (Wed) – Last day to drop with a W.

Nov 21-25 (Mon-Fri) – Fall Break – No classes

Oct 31 (Mon) - Registration for Spring begins.

Nov 11 (Fri) - Registration for Spring ends.

Dec 2 (Fri) - Last day classes.

Dec 5 - Dec 9 (Mon-Fri) - Final Exams.

Dec 14 (Fri) – Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement. UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed-assignments:

Exams cannot be made-up. If no tests are missed, your score on the final exam will replace your lowest test if

the score on the final is higher. If one test is missed, then the grade on the final exam will be substituted for the test grade. If two or more tests are missed, a grade of zero will be given for the second and any subsequently missed tests.

If you have not missed any exams throughout the semester, the final exam is optional. If you miss the final exam, you will not be allowed a make-up. The final exam is Monday, Dec 5 at 8:00 a.m.

Media Lessons and Homework will not be accepted late and extensions will **NOT** be given. The lowest three Media Lessons and homework assignments will be dropped.

If you are involved in a University extracurricular activity that results in you missing an exam, you MUST make arrangements before the date of the exam or quiz to take it before you leave for the event. Failure to do so will result in a zero on the exam or quiz.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before the last day of class.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Work Required:

| Activity | Assignment | Estimated hours for the average student |
|--------------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 40 hours |
| | Taking tests (1 hour for each of five tests) | 5 hours |
| | TOTAL: | 45 hrs |
| Preparation (outside of class) | Reviewing class notes: 1 hour per week | 15 hours |
| | Homework: 5 hours per week | 75 hours |
| | TOTAL: | 90 hours |
| Overall Total | | 135 hours |

Explanation of Grading Policy:

Class Assessments: There will be four assessments (five counting the final exam) for the course. They will all be given in-class (on-campus) if possible.

Homework: Homework for this class will be completed online using blackboard. Extensions will not be given for late homework for any reason. The lowest three homework assignment will be dropped. For review purposes, you can view all homework after the due date.

Grading: Each student's grade will be based on a percentage of the number of total possible points determined as follows:

$$\begin{array}{lll} \mbox{4 Unit Tests} - 80\% & \mbox{of grade} \\ \mbox{Homework} - 20\% & \mbox{of grade} \\ \mbox{Homework} - 20\% & \mbox{of grade} \\ \mbox{Final Exam} & -20\% & \mbox{of the grade} \\ \end{array}$$

$$A = 90 - 100\%$$
 $B = 80 - 89\%$ $C = 70 - 79\%$ $D = 60 - 69\%$ $F = 0 - 59\%$

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

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Help Link: https://www.uamont.edu/it/blackboard.html

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 $Updated~08/10/2022\\ \textbf{This syllabus is a working document and all class dates and policies can be changed at any time without}$ prior notice.

UNIVERSITY OF ARKANSAS AT MONTICELLO

SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES

COURSE SYLLABUS Fall, 2022 M - F 8:10 a.m.

Instructor Name: Dr. Carole Martin

Instructor Location of Office: Science Center A-29

Instructor Phone: 870-460-1464

Instructor Email Address: efird@uamont.edu

Office Hours: MWF 9 - 12, 1 - 2; TTH 9 - 9:30, 12:30 - 1:30.

Course Title and Credit Hours: MATH 1143 (ACTS #1103): College Algebra with Review, 3 credit hours. **Prerequisites:** MATH 183 Intermediate Algebra, with a grade of C or above OR 19 or above on the ACT.

Required text and other materials:

College Algebra notebook by H. Sayyar, 10th edition (**sold at the UAM Bookstore**) A graphing calculator (TI 83 series)

Blackboard Supplemental Student Success Support:

This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, and particularly for homework assignments.

Course Description: Functions, graphs, quadratic functions, polynomial functions, rational functions, exponential and logarithmic functions, systems of equations, applications of algebra, matrices, and the binomial theorem.

Student Learning Outcomes:

By the conclusion of the course you should be able to:

Determine if an equation, graph or set of ordered pairs represents a function.

Find the domain of a function.

Sketch the graph of a function.

Determine if a function is one-to-one and if so, find its inverse.

Understand and apply the properties of polynomial and rational functions.

Understand and apply the properties of exponential and logarithmic functions.

Solve exponential and logarithmic equations.

Solve a system of linear equations using the methods of substitution, elimination by addition, Gaussian elimination, and matrix equations.

Perform arithmetic operations with matrices.

Use the Binomial Theorem to find the coefficients of terms in a binomial expansion.

Course Assignments/Assessments:

Homework: Homework with due dates will be assigned throughout the semester. All assignments are posted on Blackboard and must be completed and submitted online through Blackboard. No due date will be extended. An honest and committed effort on homework is vital to succeed in this course. You should begin working on an assignment for a given section as soon as the section is covered. Note any exercises you have trouble with and bring them to class for discussion. If you have any difficulty, the time to address it is early so it does not grow into a bigger problem.

Tests: We will have four tests throughout the semester. The content and date of each test is roughly indicated in the table below. All the tests will be closed book and will consist of multiple choice and open-ended questions.

Final Exam: The final exam will be comprehensive and all questions will be of multiple choice format.

Tentative Exam Schedule:

| Exam 1 | Chapter 1 | September 22 |
|------------|----------------|--------------------------|
| Exam 2 | Chapter 2 | October 12 |
| Exam 3 | Chapter 3 | November 1 |
| Exam 4 | Chapters 4 & 5 | December 1 |
| Final exam | Comprehensive | December 6, 8 am – 10 am |

Grading Scale:

A = 90 - 100, B = 80 - 89, C = 70 - 79, D = 60 - 69, F = 59 and below

Special Dates of Concern:

August 17 (Wednesday) First day of classes.

August 19 (Friday) Last day to register or add classes.

August 23 (Tuesday) Tuition and fees due by 3:30 pm for all registered students.

September 5 (Monday) Labor Day Holiday. Offices and classes closed.

October 26 (Wednesday)

October 31 (Monday)

November 11 (Friday)

Last day to drop with a W.

Preregistration for Spring begins.

Preregistration for Spring ends.

November 21- 25 (Monday – Friday) Fall Break. No classes. December 2 (Friday) Last day of classes.

December 5 – 8 (Monday - Thursday) Final exam period.

December 9 (Friday) Commencement

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Course-specific Attendance Policy/Participation Requirements: There are no make-up chapter exams. If you know that you are going to be absent the day that a chapter exam is scheduled, you may make arrangements to take it early. If no tests are missed, your score on the final exam will replace your lowest test score. If one test is missed, the grade on the final exam will be substituted for the test grade.

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Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

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cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Work Required:

| Activity | Assignment | Estimated hours for the average student |
|--------------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1 hour class periods | 70 hours |
| | Taking tests (1 hour for each of four tests) | 4 hours |
| | Taking the final exam | 2 hours |
| | TOTAL: | 76 hrs |
| Preparation (outside of class) | Reviewing class notes (3 hours per week) | 45 hours |
| | Homework (5 hours per week) | 75 hours |
| | TOTAL: | 120 hours |
| Overall Total | | 196 hours |

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Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

Classroom Behavior/Disruptive Policy:

Students will not disturb normal classroom procedures and instruction. Disruptive conduct includes but is not limited to violent, noisy actions, profane or obscene language, intoxication, verbal abuse/slander, quarreling, fighting, threats to safety to oneself or others and failure to comply with the directions of a university official (reference UAM Student Handbook). A faculty member may, at his or her discretion, dismiss a disruptive student from the classroom for the balance of the class period and, at the faculty member's discretion, consider the missed class time as an unexcused absence.

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES, COURSE SYLLABUS MATH 1003 (ACTS# MATH 1003), QUANTITATIVE LITRACY, Section 03, MWF Fall 2022

Instructor: Dr. H. Sayyar Office: Science Center A-19 e-mail: sayyar@uamont.edu

Office Hours: MWF: 10:00-11:00 am & 2:00-3:00 pm TH: 9:00-10:30 am & 2:00-3:00 pm

Other hours: by appointment.

Course Title and Credit Hours: MATH 1003, Quantitative Literacy (ACTS# MATH 1003), 3 hours

Prerequisites: Passage of requirements to enroll in a MATH 1000 level class.

Required textbooks, workbooks, supplementary materials: (1) Modified Math in Society. Lippman, custom edition for UAM (The instructor will furnish the notebook) (2) a calculator with statistics capabilities. Instructor will use TI-84 in class for demonstration purposes. Learning the syntax of any other brand/type of calculator will be the responsibility of the student.

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: This course is intended as a study of the techniques of problem solving, consumer mathematics, probability, analyzing data and statistics.

Student Learning Outcomes:

By the end of this course,

You should be able to use elementary statistical a probability tools and techniques to solve a wide range of problems which occur in everyday life.

You will have mathematical understandings and skills to be productive workers, discerning consumers, and informed citizens.

Course Assignments/Assessments: All exams and quizzes are closed book and will be given on campus.

| Topics | Sections | Homework Assignments | Test Dates |
|---|------------|---|--------------------------|
| Unit 1, Probability | §1.1 – 1.6 | Homework 1 – 5 | Test 1: F, Sep 23 |
| Unit 2: Statistics and Describing Data | §2.1 – 2.5 | Homework 6 – 11 | Test 2: F, Oct 21 |
| Unit 3, Part 1: Growth Models | §3.1 – 3.3 | Homework 12 – 14 | Test 3: M, Nov 7 |
| Unit 3, Part 2: Consumer Finance as Growth Models | §3.4 – 3.7 | Homework 15 – 18 | Test 4: F, Dec. 2 |
| Final Exam | Cumulative | Monday, December 5 @ 8:00 a.m. (to replace one missed test score or a low score.) | |

Course Assignments and Assessments:

Homework: Homework with due dates will be assigned throughout the semester. All homework assignments are posted on Blackboard and must be completed and submitted Online through Blackboard. **No due date will be extended.** An honest and committed effort on homework is vital to success in the course. You should begin working on an assignment for a given section as soon as the section is covered. If you have any difficulty with concepts discussed in class or with the assignments, you must see your instructor early on so that they won't grow to bigger problems.

Tests: There will be four tests throughout the semester. The contents and approximate date of each test are shown in the table above. Each test will be closed book and will consist of multiple choice and open-response questions.

Final Exam: The final exam will be comprehensive and will be given to replace a zero on a (missed) test or a low score.

Special Dates of Concern:

August 17 (Wed) - First day of classes

August 19 (Fri) - Last day to register or add classes.

August 23 (Tues) - Tuition and fees due by 3:30 p.m.

September 5 (Mon) - Labor Day Holiday.

October 26 (Wed) - Last day to drop a session 1 class with a W or withdraw from the term with grades of W.

October 31 (Mon) - Registration for Spring 2022 begins.

November 11 (Fri) - Registration for Spring ends.

November 21-25 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes.

December 2 (Fri) - Last day of classes

December 5-8 (Mon-Thurs.) - Final exam period.

December 9 (Fri) – Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement. UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students with several absences will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed-assignments:

Exams cannot be made-up. If one test is missed, then you take a final exam (comprehensive) to replace the zero on that missed test. If two or more tests are missed, a grade of zero will be given for the second and any subsequently missed tests.

Homework will not be accepted late and extensions will not be given. All homework assignments are

available on the first day of class, so plan your semester accordingly.

If you are involved in a University extracurricular activity that results in you missing class on the day of an exam, you MUST make arrangements before the date of the exam or quiz to take it before you leave for the event. Failure to do so will result in a zero on the exam or quiz.

Students who miss class are responsible for learning the material presented on the day of their absence. They should review what they missed using the resources available on the Blackboard component of the course.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before the last day of class.

The use of cell phones, computers and/or other electronic devices is NOT allowed (excluding stand-alone calculators). Students that violate this policy will be removed from class.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades. Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Work Required:

| Activity | Assignment | Estimated hours for |
|---------------|---|---------------------|
| | | the average student |
| Academic | Listening to lectures or participating in class activities: | 40 hours |
| Engagement | approximately 1.5 hour class periods | |
| | Taking tests (1 hour for each of five tests) | 5 hours |
| | TOTAL: | 45 hours |
| Preparation | Reviewing class notes: 1 hour per week | 15 hours |
| (outside of | | |
| class) | Homework: 5 hours per week | 75 hours |
| | | |
| | TOTAL: | 90 hours |
| Overall Total | | 135 hours |

Explanation of Grading Policy:

There will be four assessments for the course. They will all be given in-class (on-campus). Homework for this class will be completed online on Blackboard. Go to the course Blackboard shell, click on a homework assignment and follow the directions as the site instructs you to begin working your homework. Extensions

will not be given for late homework for any reason. The lowest three homework assignment will be dropped. For review purposes, you can view all homework after the due date.

Grading: Each student's grade will be based on a percentage of the number of total possible points determined as follows:

4 Unit Tests – 80% of grade – 400 points Homework – 20% of grade – 100 points

A = 90 - 100% B = 80 - 89% C = 70 - 79% D = 60 - 69% F = 0 - 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES COURSE SYLLABUS

College Algebra MATH 1043-08 (1524)

Fall 2022, TH, 9:40am 11:00pm B18

Instructor: Lura Cooper **Office**: Science Center A20 **Phone**: 460-1916

e-mail: SandlinLE@uamont.edu

: by appointment.

Course: MATH 1043 (ACTS Equivalent Course: MATH 1103), College Algebra, 3 credit hours

Course prerequisite: MATH 183, Intermediate Algebra or appropriate score on a placement test.

Required text and other materials:

1. College Algebra notebook by H. Sayyar, 10th edition (**sold at the UAM Bookstore.**)

2. A graphing calculator is required (TI 83 series.)

Blackboard Supplemental Student Success Support: This course has a Blackboard supplemental resource component to support your success. You must regularly visit this course component on Blackboard for announcements, supplemental resources, notes, class discussions, videos, and <u>particularly for homework assignments</u>.

Course Description: Functions, graphs, quadratic functions, polynomial functions, rational functions, exponential and logarithmic functions, systems of equations, applications of algebra, matrices and the binomial theorem.

Learning Outcomes: By the end of this course, you should be able to:

Determine if an equation, graph or set of ordered pairs represents a function.

Find the domain of a function.

Sketch the graph of a function.

Determine if a function is one-to-one and if so, find its inverse.

Understand and apply the properties of polynomial and rational functions.

Understand and apply the properties of exponential and logarithmic functions.

Solve exponential and logarithmic equations.

Solve a system of linear equations using the methods of substitution, elimination by addition, Gaussian elimination, and matrix equations.

Perform arithmetic operations with matrices.

Use the Binomial Theorem to find the coefficients of terms in a binomial expansion.

Course Assignments/Assessments:

Homework: Homework with due dates will be assigned throughout the semester. All homework assignments are posted on Blackboard and must be completed and submitted Online through Blackboard. No due date will be extended. An honest and committed effort on homework is vital to success in the course. You should begin working on an assignment for a given section as soon as the section is started until it is completely covered. If you have any difficulty with concepts discussed in class or with the assignments, you must see your instructor early on so that they won't grow to bigger problems.

Tests: There will be four tests (not online) throughout the semester. The contents and approximate date of each are shown in the table below. Each test will be closed book and will consist of multiple choice and open-response questions.

Final Exam: The final exam will be comprehensive, and all questions will be in multiple choice format.

Course Sequence and Schedule: The following dates are tentative and will be revised as necessary.

| Chapter | Sections | Exam Dates |
|------------|---|----------------------------|
| 1 | 1.1-1.6: Graphs and Functions | Thursday, September 15 |
| 2 | 2.1-2.3: Polynomial, and Rational Functions | Thursday, October 6 |
| 3 | 3.1-3.6: Exponential, and Logarithmic Functions | Tuesday, November 1 |
| 4 | 4.1-4.3: Systems of Equations & Inequalities, Linear Programing | Thursday, November 17 |
| | 5.1-5.2: Matrices and Systems of Equations | |
| 5 | 5.3-5.4: Matrix Equations, Binomial Theorem | Friday, December 1 |
| Final Exam | Comprehensive | Tuesday, Dec. 6, 8 – 10 AM |

Course Content:

Chapter 1: Functions

- 1.1 Functions
- 1.2 Functions: Graphs & Properties
- 1.3 A Library of some Standard Functions
- 1.4 Transformation of Functions
- 1.5 Operations on Functions
- 1.6 Inverse Functions

Chapter 2: Polynomials and Rational Functions

- 2.1 Quadratic Functions (Parabolas)
- 2.2 Polynomial Functions
- 2.3 Rational Functions

Chapter 3: Exponential and Logarithmic Functions

- 3.1 Exponential Functions and Their Graphs
- 3.2 Application of Exponential Functions
- 3.3 Logarithmic Functions and Their Graphs
- 3.4 Properties of Logarithms
- 3.5 Exponential and Logarithmic Equations
- 3.6 Exponential and Logarithmic Models

Chapter 4: Systems of Equations and Inequalities

- 4.1 Linear & Nonlinear Systems of Equations in Two Variables
- 4.2 Linear and Nonlinear Inequalities in Two Variables
- 4.3 Linear Programing

Chapter 5: Matrices and Binomial Theorem

- 5.1 Matrices
- 5.2 Matrices and Systems of Linear Equations in Three or More Variables
- 5.3 Matrix Equations
- 5.4 Binomial Theorem

Provisions for tests and evaluations: You will need a scantron, a pencil, and a graphing calculator for each exam.

Special Dates of Concern:

August 17 (Wed) - First day of classes

August 19 (Fri) - Last day to register or add classes.

August 23 (Tues) - Tuition and fees due by 3:30 p.m.

September 5 (Mon) - Labor Day Holiday.

October 26 (Wed) - Last day to drop a session 1 class with a W or withdraw from the term with grades of W.

October 31 (Mon) - Registration for Spring 2023 begins.

November 11 (Fri) - Registration for Spring ends.

November 21-25 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes.

December 2 (Fri) - Last day of classes

December 5-8 (Mon-Thurs.) - Final exam period.

December 9 (Fri) – Commencement.

UAM Attendance Policy:

Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.

Regardless of the reasons for a student missing, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw before or on October 27 receive a grade of W. Notre that withdrawing after October 27 will result a grade F.

Course Attendance Policy: If an absence is unexcused, the student may not make up any test or homework missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis and are determined to be excused or unexcused at the sole discretion of the instructor. If a student misses six consecutive class meetings without informing the instructor of a valid reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system.

It is the student responsibility to make sure he/she will sign the attendance sheet, same signature each and every time. If a student leaves before the class is dismissed by the instructor, the student will be considered to be absent.

Special Policies:

A makeup test is allowed only for excused absences. In such cases proper arrangements must be <u>made in advance</u> to take the test <u>early</u>. Otherwise, the student must make up the test within three days of returning to class or receive a score of 0. If a test is missed, the final exam score will replace the missed test score. If more than one test is missed, the final exam score will replace the first missed test score, and all subsequent missed tests will be assigned a score of zero. If no tests are missed, the final exam score, if higher, will replace the lowest test score.

To prevent distractions to others, all cell phones must be turned off and put away in class. If you fail to turn off and put away your cell phone, you will be asked to leave the classroom.

A student is not allowed to use a cell phone, tablet, or a computer as a calculator on an exam or quiz. Any violation of this policy will be treated as an incidence of cheating, and the student will receive a 0 for the assignment.

A student may receive a grade of Incomplete only if he/she has a valid reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 65% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Homework extensions will not be granted.

Midterm Grade Policy:

Mid-semester grades are unofficial progress reports, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5-hour class periods | 39 hours |
| | Taking tests (1.5 hour for each of four tests) | 6 hours |
| | TOTAL: | 45 hrs. |
| Preparation (outside of | Reviewing class notes: 1 hour per week | 15 hours |
| class) | Homework: (on WebAssign) 6 hours per week) | 90 hours |
| | | |
| | TOTAL: | 105 hours |
| Overall Total | | 150 hours |

Grading: There is a maximum of 700 points to earn:

Homework/quizzes: 100 Tests: 500 Final Exam: 100

Final grades are assigned according to the following scale:

A: 90 – 100% B: 80 - 89% C: 70 - 79% D: 60 – 69% F: 0 – 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance.

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to

connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

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As a student you may experience a range of issues that can cause barriers to learn. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor

Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414 Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and

MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

Students with disabilities: It is the policy of the University of Arkansas at Monticello to accommodate individuals

with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the

responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course.

Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall

Room 124; phone 870 460-1226; TDD 870 460-1626; Fax 870 460-1926; email: whitingm@uamont.edu.

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES COURSE SYLLABUS, FALL 2022, MWF 12:10-1:00

Instructor: Dr. Carole Martin Office: Science Center, A-29 Phone: (870) 460-1464 e-mail: efird@uamont.edu

Office Hours: MWF: 9 - 12, 1 - 2 pm, TTH: 9 - 9:30 am, 12:30 - 1:30 pm.

Course: MATH 1033 (ACTS Equivalent Course: MATH 1203), Trigonometry, Section 01, MWF 12:10-1:00, 3

credit hours

Course prerequisite: MATH 1043, College Algebra or appropriate score on a placement test.

Required text and other materials:

Trigonometry Notebook by H. Sayyar (**sold at the UAM Bookstore**) A graphing calculator (TI 83 series)

Blackboard Supplemental Student Success Support:

This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, and **particularly for homework assignments**.

Course Description: Definition of the trigonometric functions, solution of right and oblique triangles, trigonometric equations and identities and vectors.

Learning Outcomes: By the end of this course, you should be able to:

Understand the definitions of the trigonometric functions from the perspectives of the right triangle, the coordinate plane, and the unit circle.

Solve right triangles.

Understand radian measure and convert between radian and degree measure.

Sketch the graphs of the trigonometric functions and various transformations of trig graphs.

Understand and apply the inverse trigonometric functions.

Verify and apply identities, including the sum and difference formulas and the double- and half-angle formulas. Solve trigonometric equations.

Solve oblique triangles using the Law of Sines and the Law of Cosines, & Applications

Understand vectors from both an algebraic and geometric perspective and apply them in the solution of problems.

Use the trigonometric form of complex numbers to multiply and divide complex numbers, raise a complex number to a given power, and find the roots of a complex number.

Course Assignments/Assessments:

Homework: All homework will be done through Blackboard. Homework with due dates will be assigned

throughout the semester. An honest and committed effort on homework will pay great dividends at test time. You should begin working on an assignment for a given section as soon as the section is covered. Note any exercises you have trouble with and bring them to class for discussion. If you have any difficulty, the time to address it is early so it does not grow into a bigger problem.

Tests: We will have four tests throughout the semester. The content and date of each test is roughly indicated in the table below. All of the tests will be closed book and will consist of multiple choice and openended questions.

Final Exam: The final exam will be comprehensive, and all questions will be of multiple choice format.

Course Sequence and Schedule:

| Unit | Topics and Section Number | Test Date |
|----------------|--|---------------------------------------|
| Chapters 1 & 2 | Basic Skills & Right Triangle Trig. 1.1-1.5, 2.1-2.4 | Friday, September 16 |
| Chapters 3 & 4 | Radian Measure & Circular Trig. 3.1-3.5, 4.1-4.4 | Friday, October 14 |
| Chapters 5 & 6 | Trig. Identities & Equations. 5.1-5.4, 6.1-6.3 | Wednesday, November 9 |
| Chapter7 | Triangles & Vectors. 7.1-7.6 | Friday, December 2 |
| Final Exam | Comprehensive | Monday, December 5 8:00 – 10:00 am |

Chapter 1: Basic Skills

Sections 1.1 & 1.2 - The Coordinate Plane

Section 1.3 – Trig Ratios (Definition 1)

Section 1.4 – Introduction to Identities

Section 1.5 – More on Identities

Chapter 2 – Right Triangle Trig

Section 2.1 – Trig Ratios (Definition 2)

Section 2.2 – Trig and Calculators

Section 2.3 – Solving Right Triangles

Section 2.4 – Applications with Right Triangles

Chapter 3 – Radian Measure

Section 3.1 – Reference Angles

Section 3.2 – Radians and Degrees

Section 3.3 – Trig Ratios as Circular Functions (Definition 3)

Section 3.4 – Arc Length and Sector Area

Section 3.5 - Velocities

Chapter 4 – Circular Trig (Graphs)

Section 4.1 – Basic Graphs

Section 4.2 – Amplitude, Reflection, and Period

<u>Section 4.3 – Vertical and Horizontal Translations</u>

Section 4.4 – The Other Trig Functions

Chapter 5 – Trigonometric Identities

Section 5.1 – Proving Identities

<u>Section 5.2 – Sum and Difference Formulas</u>

Section 5.3 – Double Angle Formulas

Section 5.4 – Half Angle Formulas

Chapter 6 – Solving Trig Equations

Section 6.1 – Intro to Solving Trig Equations

<u>Section 6.2 – More on Trigonometric Equations</u>

<u>Section 6.3 – Trig Equations with Multiple Angles</u>

Chapter 7 – Triangles

Section 7.1 – Law of Sines

Section 7.2 – Law of Cosines

Section 7.3 – The Ambiguous Case

Section 7.4 – Area of Triangles (Alternate Formulas)

Section 7.5 – Vectors

Special Dates of Concern:

August 17 (Wed) –First day of classes.

August 19 (Fri) – Last day to register or add classes.

August 23 (Tues)—Tuition and fees due by 3:30 pm.

September 5 (Mon) – Labor Day Holiday.

October 26 (Wed) – Last day to drop with a W.

October 31 (Mon) – Preregistration for Spring begins.

November 11 (Fri) – Preregistration for Spring ends.

November 21 – 25 (Mon – Fri) – Fall Break. No classes.

December 2 (Fri) – Last day of classes.

December 5 – 8 (Mon – Thurs) – Final Exams

December 9 (Fri) - Commencement

UAM Attendance Policy:

Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.

Course Attendance Policy: If an absence is unexcused, the student may not make up any test or homework missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences

provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis and are determined to be excused or unexcused at the sole discretion of the instructor.

If a student misses four consecutive class meetings without informing the instructor of a valid and documentable reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system.

Attendance will be taken at every class meeting. If a student is late, it is his/her responsibility to make sure the instructor knows they were present.

Special Policies:

A makeup test is allowed only for excused absences. In such cases, proper arrangements must be made in advance to take the test early. If a test is missed, the final exam percentage score will replace the missed test score. If more than one test is missed, the final exam score will replace the first missed test score, and all subsequent missed tests will be assigned a score of zero. If no tests are missed, the final exam score, if higher, will replace the lowest test score.

To prevent distractions to others, all cell phones must be turned off and put away in class. If you fail to turn off and put away your cell phone, you will be asked to leave the classroom and 5 points will be deducted from your overall total score.

A student is not allowed to use a cell phone, tablet, or computer as a calculator on an exam. Any violation of this policy will be treated as an incidence of cheating, and the student will receive a 0 for the exam.

A student may receive a grade of Incomplete only if he/she has a valid and well-documented reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 65% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Homework extensions will not be granted. It is the student's responsibility to have an updated computer with reliable internet connection that is compatible with Blackboard.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|--------------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1 hour class periods | 40 hours |
| | Taking tests (1 hour for each of four tests) | 4 hours |
| | Taking the final exam | 2 hours |
| | TOTAL: | 46 hours |
| Preparation (outside of class) | Reviewing class notes: 1 hour per week | 15 hours |
| | Homework: (on WebAssign) 6 hours per week) | 90 hours |
| | | |
| | TOTAL: | 105 hours |
| Overall Total | | 151 hours |

Grading: There is a maximum of 600 points to earn:

Homework: 100 Tests: 400 Final Exam: 100

Final grades are assigned according to the following scale:

A: 90 – 100% B: 80-89% C: 70-79% D: 60 – 69% F: 0 – 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will be a zero for the assignment on the first instance and a grade of an F for the class for the second instance.

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from

8:00 a.m. to 4:30 p.m., at (870) 460-1663. Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services. Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate is in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

Classroom Behavior/Disruptive Policy:

Students will not disturb normal classroom procedures and instruction. Disruptive conduct includes but is not limited to violent, noisy actions, profane or obscene language, intoxication, verbal abuse/slander, quarreling, fighting, threats to safety to oneself or others and failure to comply with the directions of a university official (reference UAM Student Handbook). A faculty member may, at his or her discretion, dismiss a disruptive student from the classroom for the balance of the class period and, at the faculty member's discretion, consider the missed class time as an unexcused absence.

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

University of Arkansas at Monticello

School of Mathematics and Natural Sciences Course Syllabus

MATH 2255 01 (1412) Calculus 1, 5 credit hours

Fall 2021 MW 8:10am – 9am, TuTh 8:10-9:30, SC A3

Instructor Name: Lura Cooper Instructor Location of Office: A20

Instructor Phone: 870-460-1916 Instructor Email: SandlinLE@uamont.edu

Office Hours: MTWTh 11:00am – 1:00PM F 8:00am-9am, 10am-11am

By appointment

Course Title and Credit Hours: MATH 2255(ACTS Equivalent # Math 2405), Calculus I, 5 credit hours

Course Prerequisites: Trigonometry, MATH 1033(ACTS Equivalent #Math 1203), and College Algebra, Math 1043(ACTS Equivalent #Math 1103), or Precalculus, MATH 1175 (ACTS Equivalent # Math 1305).

Required Text and Materials:

All students must have access to a graphing calculator. Strongly recommended models are TI-83, TI-83 Plus or the TI-84 Plus. Other calculators of equal capability may be used, but it is the student's responsibility to understand how to use them.

A Texas Instruments TI-89 graphing calculator is recommended for checking your answers. Calculators such as the TI-89 that have a CAS system should not be used in the class because they are not allowed on the examinations.

Herman, Edwin, and Gilbert Strang. *Calculus*. OpenStax, Rice University, 2018. Online bookstore: <u>UAM</u> Bookstore

Blackboard Supplemental Student Success Support:

This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description:

The purpose of this course is developing the fundamentals of differential and integral calculus which includes both the ability to perform manipulations and conceptual understanding of basic themes. Specific objectives are: limits, derivatives, rate of change, integrals, and applications of both integrals and derivatives.

Student Learning Outcome: By the conclusion of the course, you should know

Chapter 1: Review of Algebra

- 1.1: Functions
- 1.2: A Catalog of Essential Functions
- 1.3: Transformations and Operations of Functions
- 1.4: Graphing Calculators
- 1.5: Exponential Functions
- 1.6: Inverse and Logarithmic Functions

Chapter 2A: Limits

- 2.1: A preview of Calculus
- 2.2: The Limit of a Function

- 2.3: Limit Laws
- 2.4: Continuity
- 2.5: The precise Definition of a Limit TEST 1

Chapter 3A: Differentiation Rules

- 3.1: Defining the Derivative
- 3.2: The Derivative as a Function
- 3.3: Differentiation Rules Test 2

Chapter 3B: Differentiation Rules

- 3.4: Derivatives as Rates of Changes
- 3.5: Derivatives of Trigonometric Functions
- 3.6 The Chain Rule
- 3.7: Derivatives of Inverse Functions
- 3.8: Implicit Differentiation
- 3.9: Derivatives of Exponential and Logarithmic Functions TEST 3

Chapter 4: Applications of Differentiation

- 4.1: Related Rates
- 4.3: Maximum and Minimum Values
- 4.4: Mean Value Theorem
- 4.5: Derivatives and the Shape of the Graph
- 4.6: Limits at Infinity and Asymptotes
- 4.7: Applied Optimization Problems
- 4.8 L'Hospital's Rule TEST 4
- 4.10: Antiderivatives

Chapter 5: Integrals

- 5.1: Approximating Areas
- 5.2: The Definite Integral
- 5.3: The Fundamental Theorem of Calculus
- 5.4: Integration Formulas and the Net Change Theorem
- 5.5: The Substitution Rule
- 5.6: Integrals Involving Exponential and Logarithmic Functions TEST 5

Tentative Teaching Schedule (subject to change) CAL 1 A3

| 8/17 | Syllabus, 2.1 | 10/11 | 3.8 |
|----------|------------------------|--------------|-----------|
| 8/18 | 2.1,2.2 | 10/12 | 3.8 |
| 8/22 | 2.1, 2.2 | 10/13 | TEST3 |
| 8/23 | 2.2 | 10/17 | 4.1 |
| 8/24 | 2.3 | 10/18 | 4.1 |
| 8/25 | 2.3, | 10/19 | 43 |
| 8/29 | 2.4, <mark>quiz</mark> | 10/20 | 4.3 |
| 8/30 | 2.4 | 10/23 | 4.4 |
| 8/31 | 2.5 | 10/24 | 4.4 |
| 9/5 | 2.5 | 10/25 | Quiz, 4.5 |
| 9/6 Tues | TEST 1 | 10/26 | 4.5 |
| 9/7 | 3.1 | 10/27 | 4.6, |
| 9/8 | 3.1, 3.2 | 10/30 | 4.7 |
| 9/12 | 3.2 | 11/1 | 4.8 |

| 9/13 | 3.3 quiz | 11/2 | 4.8 |
|-------|------------------|-------------|------------------|
| 9/14 | 3.3 | 11/3 | 4.8 |
| 9/15 | 3.3 | 11/7 | Review |
| 9/19 | 3.3 | 11/8 | TEST 4 |
| 9/20 | TEST 2 | 11/9 | 4.9 |
| 9/21 | 3.4 | 11/10 | 5.1, |
| 9/22 | 3.4 | 11/14 | 5.2 |
| 9/26 | 3.4 | 11/15 | 5.2, quiz |
| 9/27 | 3.5 | 11/16 | <mark>5.3</mark> |
| 9/28 | 3.5 | 11/17 | 5.4 |
| 9/29 | 3.5 | 11/28 | 5.5 |
| 10/3 | 3.6 | 11/29 | 5.6 |
| 10/4 | 3.6 | 11/30 | 5.6 |
| 10/5 | 3.7, quiz | 12/1 | TEST 5 |
| 10/6 | 3.7 | 12/2 | Review |
| 10/10 | 3.8 | 12/5 Monday | FINAL 10:30AM |

Special dates of concern: F22

Fall 22

August 17 (Wed) - First day of classes for sessions I & 8WI.

August 19 (Fri) - Last day to register or add classes.

August 23 (Tues) - Tuition and fees due by 3:30 p.m. for all registered students.

September 5 (Mon) - Labor Day Holiday. Offices and classes closed.

October 26 (Wed) - Last day to drop a session 1 class or withdraw. Grade(s) will be W.

October 31 (Mon) - Registration for Spring begins.

November 11 (Fri) - Registration for Spring ends. Deadline to apply for May graduation.

November 21-25 (Mon-Fri) - Fall Break. Classes closed. Offices closed on 24 & 25.

December 2 (Fri) - Last day of classes for sessions 1

December 5-8 (Mon-Thurs.) - Final exam period.

December 9 (Fri) - Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement. UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

Students are expected to attend all required class sessions during the semester. I keep track of absences regularly, this is the university policy, and I am required to send the last date of attendance periodically. You are expected to attend all class meetings and make a serious effort to do the assigned work. Poor attendance is the greatest factor in unsuccessful performance in this course and college in general. You cannot possibly learn the material if you do not go to class. If the number of unexcused absences exceeds 8 hours the student may not be able to complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Special Policies:

If one test is missed, then the final exam grade will be substituted for that test grade. If two or more tests are missed, then a grade of zero will be given for each missed test other than the first.

If no tests are missed and the final exam grade is greater than the lowest test grade, then the final exam grade will be substituted for that test grade.

Make-up tests will be allowed on an individual, case-by-case basis. To make-up a test, a student must present evidence of a serious circumstance that prevented them from taking the exam on the scheduled day. All make-up exams must be completed within two class days of the scheduled exam day. If circumstances will not allow a student to make-up the exam within the specified time-period, then the student will receive a zero for the test and the final exam score will replace the zero for the first occurrence. All subsequent missed exams will keep a score of a zero. If you will miss an exam due to a University extracurricular activity, **you must arrange to take the exam before the scheduled test date**. If you fail to do this, you will receive a score of zero for the exam.

The two lowest homework assignments are dropped at the end of the semester. Extensions on homework are **NOT** granted. Homework is expected to be completed before the scheduled exam. **Homework is due by 8:00** on the day of the exam or quiz.

Cheating and plagiarism are unacceptable activities and a grade of zero will be given for every case of verified cheating. In addition, all occurrences will be reported to the Vice Chancellor for Academic Affairs for other possible actions.

Students are expected to attend all required class sessions during the semester. I keep track of absences regularly; this is the university policy and I am required to send the last date of attendance periodically. You are expected to attend all class meetings and make a serious effort to do the assigned work. Poor attendance is the greatest factor in unsuccessful performance in this course and college in general. You cannot possibly learn the material if you do not go to class. If the number of unexcused absences exceeds 8 hours the student may not be able to complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course.

If a circumstance occurs which prevents a student from completing the course in the given timeframe, the student may request a grade of Incomplete for the course, if the following criteria are met:

The student must have a passing grade at the time of the disruption.

The student must have completed at least 70% of the coursework.

The request must be in writing with appropriate documentation attached and must be received at least 48 hours

before the deadline for submission of grades to the Registrar.

Disorderly Conduct: Any behavior which disrupts the regular or normal functions of the University community, including behavior which breaches the peace or violates the rights of others is prohibited under the Student Conduct Code. In particular, all cell phones, beepers, etc. must be turned off and out of sight during class.

If you fail first quiz and/or test you have to attend tutoring in the Computer Lab in Room SC A-23 or outside instructor assistance. Extent of failure determines amount of time required for tutoring. In addition, you may have a mandatory 30 minutes office visit per week.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 5 hours per week | 66 hours |
| | Taking tests (1.5 hour for each test) | 9 hours |
| | TOTAL: | 75 hours |
| Preparation (outside of | Reviewing class notes: 1.7 hour per week | 25.5 hours |
| class) | Homework: 10 hours per week | 150 hours |
| | TOTAL: | 175.5 hours |
| | Taking the final exam: | 2 hours |
| Overall Total | | 252.5 hours |

EXPECTATIONS OF THE STUDENT:

This course is not a particularly difficult subject if it is approached with the right attitude and commitment. Consistent effort is necessary. Seek assistance when you encounter a difficulty -- not after the troublesome topic has been used to develop other topics and

a simple misunderstanding has become a major impediment. You should commit at least two hour of study time for each hour of lecture.

Grading Policy:

Each student's grade will be determined by quizzes/homework, chapter tests, and a final exam. Quizzes are normally announced in advance and most homework is assigned/graded through MyOpenMath (linked on BlackBoard). Tests cover those topics presented in the text and the lecture. The final exam is comprehensive. The course grade is determined as follows:

| Quizzes/ % |
|--|
| Homework18 % |
| Exams75% |
| Grade Assignment: |
| Grades will be assigned on the following basis: |
| A = 90 - 100. $B = 80 - 89$. $C = 70 - 79$. $D = 60 - 69$. $F = 59$ and below |

TECHNICAL SUPPORT INFORMATION

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The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

CDC and UAM recommendations will be followed.

UNIVERSITY OF ARKANSAS AT MONTICELLO

School of Mathematical and Natural Sciences MATH 2333 Mathematical Reasoning Course Syllabus Fall 2021, TH 9:40 – 11:00 a.m., SC A3

Instructor Name: V. Lynn Fox **Instructor Phone:** 870-460-1416

Location of Office: Science Center, Room A-24 Instructor Email Address: fox@uamont.edu

Office Hours: MW 10:00 - 11:00, 12:00 - 1:00; TH 9:00 - 9:30, 12:30 - 2:00, F 11:00 - 1:00

Course Title and Credit Hours: MATH 2333, 3 credit hours Prerequisites: A grade of at least a C in

MATH 1043 or its equivalent. Required textbooks, workbooks, supplementary materials:

Required: Mathematical Reasoning: Writing and Proof, Ted Sundstrom, 3rd edition,

ISBN: 979-8622238970. Available at https://www.tedsundstrom.com/mathematical-reasoning-3 as an open-

source textbook.

For additional textbook information, you may go to the online bookstore: UAM Bookstore

Blackboard Supplemental Student Success Support: This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for assignments, notes, and required video presentations. Be sure you have access to an Internet connection strong enough to stream low-quality video and submit assignments.

Course Description: The focus of this course is to develop mathematical reasoning and techniques used in writing mathematical arguments. This involves understanding the structure of common proof formats, reading proofs to gain deeper understanding of mathematical methods, studying common mathematical logic statements and proof techniques, and developing and justifying mathematical proofs. Topics will be underscored with concrete examples to help with transitioning into a proof-based course.

Student Learning Outcomes: By the conclusion of the course you should be able to

Understand the rudiments of logic.

Understand the method of direct proof and proof by contradiction.

Understand proof by contrapositive.

Understand the Principle of Mathematical Induction.

Understand the importance of counterexample in disproving a false statement.

Apply the techniques of mathematical proof to prove mathematical statements.

Course Assignments/Assessments: All exams and quizzes are closed book and will be given on-campus if

meeting face-to-face or online with Respondus Lock-Down Browser if virtual.

| Topics in Text | Unit Exams | Quizzes |
|---|-------------------------|---------------|
| Ch 1: Intro to Writing Proofs Ch 2: Logical Reasoning Ch 3: Constructing & Writing Proofs | | Quizzes 1 - 4 |
| Ch 4: Mathematical Induction Ch 5: Set | Exam 2 - Week of Nov. 8 | Quizzes 5 - 9 |
| Theory | | |
| Ch 6: Functions | | Quiz 10 |
| Final Exam (Cumulative) – Wednesday, December 9, 8:00 – 10:00 a.m. | | |

Special Dates of Concern:

August 18 (Wed) –First day of classes.

August 20 (Fri) – Last day to register or add classes. August 23 (Mon) – Tuition and fees due by 3:30 pm. September 6 (Mon) - Labor Day Holiday.

October 27 (Wed) - Last day to drop classes with a W or withdraw from all classes with a W. November 1 (Mon) - Registration for Spring 2022 begins.

November 12 (Fri) - Registration for Spring ends.

November 22-26 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes. December 3 (Fri) - Last day of classes December 6-9 (Mon-Thurs.) - Final exam period. December 10 (Fri) – Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements: Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed- assignments: Exact exam dates will be announced, in class and via email, no later than one week before a scheduled exam. Exact quiz dates will be announced the class meeting before the quiz.

Make-up exams and quizzes are allowed at the discretion of the instructor. If the instructor determines there was a valid reason to miss class on the day of an assessment, then the missed exam and/or missed quiz must be made up by the set time limit provided by the instructor. The length of the time limit to take a missed assessment is also at the discretion of the instructor. Otherwise, all missed exams and/or missed quizzes will count as zero. As a rule of thumb, have a verifiable excuse (e.g. doctor's note, event program) when requesting a make-up assessment.

Late Work Policy: Homework will not be accepted late. The lowest three homework scores will be dropped from the final grade.

If you are involved in a University extracurricular activity that results in you missing class on the day of an exam and/or quiz, you MUST make arrangements before the date of the exam and/or quiz to take it before you leave for the event. Failure to do so will result in a zero on the assessment.

Students who miss class are responsible for learning the material presented on the day of their absence. They should obtain notes/copies of handouts/etc. from classmates who attended class that day.

Students who miss class are responsible for submitting homework as well as taking assessments by the scheduled dates of these assignments, regardless of the reason(s) for the students' absences.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before the last day of class.

The use of cell phones and/or other electronic devices (excluding permissible calculators) is NOT allowed. Students that violate this policy will be removed from class.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 3 hrs per week | 45 hours |
| | Taking tests and quizzes: | 5 hours |
| | TOTAL: | 50 hours |
| | Preparing for class: 3 hours per week | 45 hours |
| of class) | Working Preview Activities: 1.67 hours per week | 25 hours |
| | Preparing Study Materials: 1 hour per week | 15 hours |
| | TOTAL: | 85 hours |
| Overall Total | | 135 hours |

Homework: For this class, homework will focus on preparing for lecture. It will consist of reading introductory sections, working preview activities, and taking notes from videos detailing important information for the class. Preview activities and quality of notes will be graded. Assignment details will be listed on Blackboard. Homework, in total, is worth 200 points.

Class Assessments: There will be 2 in-class, closed book exams. Each exam is worth 150 points. Additionally, the final exam will be in-class and closed book on its schedule date. It is worth 200 points.

Quizzes: There will be quizzes given no less than 10 times during the semester. Quizzes will given at a random time interval and the total amount allowed in the final grade for quizzes is 250 points. If more than 10 quizzes are given, then the lowest quiz grade will be dropped so that each student has only 10 quiz grades counting in the final grade.

Grading: Each student's grade will be based on a percentage of the number of total possible points determined as follows:

2 Unit Tests 300 points

10 Quizzes 250 points (lowest quiz dropped for every quiz over 10)

Homework 200 points (3 lowest dropped)

Final Exam 250 points

A = 90 - 100% B = 80 - 89% C = 70 - 79% D = 60 - 69% F = 0 - 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

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Help Link: http://www.uamont.edu/blackboard

Email Assistance:

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STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

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As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656 Email: whitingm@uamont.edu

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https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

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This syllabus is a working document and all class dates and policies can be changed at any time without prior notice.

University of Arkansas at Monticello School of Mathematics and Natural Sciences Course Syllabus MATH 2343 01 Introduction to Statistics, 3 credit hours SC A30 Spring 2022, MWF 10:10-11AM

Instructor Name: Lura Cooper

Instructor Location of Office: A20-Phone 460-1916 Instructor Email Address: <u>SandlinLE@uamont.edu</u>

Office Hours: MWF 9am-10am

MTWThF 11am-1pm, and by appointment

Course Title and Credit Hours: Introduction to Statistics, Math 2343 01, 3 credit hours

Prerequisites: An ACT score of 21 or successful completion of a 1000-level mathematics course.

Required Text and Materials:

Openintro Statistics - 4th edition ISBN13: 9781943450077

Graphing Calculator. TI-84 is required for this course. If you use a Casio, I will not be able to help you. You may not use your phone as a calculator.

Blackboard Supplemental Student Success Support: This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

For additional textbook information, you may go to the UAM Online bookstore: <u>UAM Bookstore</u>

Course Description: An introductory statistics course that uses modeling as a unifying framework for much of statistics. The course provides a foundation in statistics with a major emphasis on constructing models from data. Students will learn to think critically about data, produce meaningful graphical and numerical summaries of data, apply probability models, and utilize statistical inference procedures using computational tools.

Student Learning Outcomes: By the conclusion of the course, you should be able to:

- 1. Understand the foundations of basic probability, random variables, and expectation and variances of random variables and their linear combinations.
- 2. Understand hypothesis testing for one sample, two sample, and ANOVA. To be able to fit linear models to data and use these to predict future observation.
- 3. Be able to take data and describe it statistically and to use appropriate graphics to visualize patterns in the data.
- 4. Be familiar a computational statistics package and how to use it to perform a basic analysis of data.
- 5. Understand the importance of statistics in modern scientific and industrial research.
- 6. Appreciate the mathematical underpinnings of statistics.

Course Content: The following topics will be covered.

Data-distributions and relationships
Producing data
Sampling Distributions
Inference for Distributions, Proportions, and Regressions
Analysis of Two-way Tables

Multiple Regression

Analysis of Variance

Course Assignments/Assessments: All examinations are closed book. All homework for a given chapter is

due by the due dates. Test schedule is subject to change.

| Tentative Schedule of Exams | | | |
|-----------------------------|-----------------------|------------|--|
| Exam | Material | Date | |
| 1 | Ch1 & Ch2 & 4.1 & 4.3 | W, 2/16 | |
| 2 | Ch5 & Ch6 | F, 4/1 | |
| 3 | Ch7 & Ch8 | M, 5/2 | |
| Final | Cumulative | Th, 5/5 @1 | |

Tentative Teaching Schedule (subject to change)

| Tentative Teaching Schedule (subject to change) | | | | |
|---|---------------|------------------|------------|--|
| Date | Topic | | | |
| 1-12 | Syllabus, 1.1 | 3-9 | 6.2 | |
| 1-14 | 1.1 | 3-11 | 6.2 | |
| 1-19 | 1.2 | 3-14 | 6.3 | |
| 1-21 | 1.3 | 3-16 | 6.3 | |
| 1-24 | 1.4 | 3-18 | 6.4 | |
| 1-26 | 2.1 | 3-28 | Lab | |
| 1-28 | 2.1 | 3-30 | Review | |
| 1-31 | 2.2 | <mark>4-1</mark> | TEST 2 | |
| 2-2 | 2.2, 2.3 | 4-4 | 7.1 | |
| 2-4 | 2.3 | 4-6 | 7.1, 7.2 | |
| 2-7 | 4.1 | 4-8 | 7.2 | |
| 2-9 | 4.1 | 4-11 | 7.3 | |
| 2-11 | 4.3 | 4-13 | 7.3 | |
| 2-14 | 4.3 | 4-15 | 7.5 | |
| <mark>2-16</mark> | TEST 1 | 4-18 | 8.1 | |
| 2-18 | 5.1 | 4-20 | 8.1 | |
| 2-21 | 5.1 | 4-22 | 8.2 | |
| 2-23 | 5.2 | 4-25 | 8.2 | |
| 2-25 | 5.2 | 4-27 | 8.3 | |
| 2-28 | 5.3 | 4-29 | 8.4 | |
| 3-2 | 5.3 | 5-2 | TEST 3 | |
| 3-4 | 6.1 | <mark>5-5</mark> | FINAL, 1PM | |
| 3-7 | 6.1 | | | |

Special Dates of Concern

Spring 2022

January 12 (Wed) - First day of class for sessions 1.

January 14 (Fri) - Last day to register or add/drop classes.

January 17 (Mon) - Martin Luther King Holiday. Offices and classes closed.

January 18 (Tues) - Tuition and fees due by 3:30 p.m. for all registered students.

March 21-25 (Mon-Fri) - Spring Break.

March 25 (Fri) - Spring Break Friday. All office closed.

March 30 (Wed)- Last day to drop a session 1 class or withdraw from the term, Grade(s) will be W.

April 4 (Mon) - Registration for Summer and Fall begins.

April 15 (Fri) - Registration for Summer and Fall ends. Deadline to apply for August and December graduation.

May 2 (Mon) - Last day of sessions 1 and 8W2 classes.

May 3 (Tues) - Study day (no classes).

May 4-May 9 (Wed-Mon) - Final Exams.

May 13 (Fri) – Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement. UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Course-specific Attendance Policy/Participation Requirements: Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed-assignments:

If no tests are missed, your score on the final exam will replace your lowest test if the score on the final is higher. If one test is missed, then the grade on the final exam will be substituted for the test grade. If two or more tests are missed, a grade of zero will be given for the second and any subsequently missed tests.

There are no makeup tests.

If you miss the final exam, you will not be allowed a make-up. The final exam is .

Late Work Policy: Homework will not be accepted late.

If you are involved in a University extracurricular activity that results in you missing class on the day of an exam, you MUST make arrangements before the date of the exam to take it before you leave for the event. Failure to do so will result in a zero on the exam.

Students who miss class are responsible for learning the material presented on the day of their absence. They should obtain notes/copies of handouts/etc. from classmates who attended class that day.

Students who miss class are responsible for submitting homework as well as taking exams by the scheduled dates of these assignments, regardless of the reason(s) for the students' absences.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or

accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before the last day of class.

The use of cell phones and/or other electronic devices (excluding permissible calculators) is NOT allowed unless permission is given by the instructor. Students that violate this policy will be removed from class.

Work Required:

Amount of time the average student should spend to be successful in Math 2343.

| Activity | Assignments | Estimated hours for the average student |
|------------------|---------------------------------------|---|
| Academic | | |
| Engagement | Exams | 5 hours |
| | Listening to Lecture/ | |
| | Review/Questions/Classwork/ Quizzes | 40 hours |
| | Total Academic Engagement | 45 hours |
| | | |
| | Review Class Notes 2 hours/week | 15 hours |
| Preparation | Complete Homework Assignments - 4 | |
| Outside of Class | hours/week | 60 hours |
| | | |
| | Study for quizzes/exams 2 hours/ week | 30 hours |
| | Total Preparation | 105 hours |
| | | |
| | Total hours for this class | 150 hours |

Homework: Homework for this class will be completed out of class. Assignment details will be listed on Blackboard. The tentative due date of each assignment is listed in the course assignment section of the syllabus. Homework will be comprised of both textbook (written) assignments and Blackboard (online) assignments. Homework, in total, is worth 20% of the total grade.

Class Assessments: There will be 3 in-class exams and a cumulative final exam. Each exam will be worth 100 points. The cumulative points for exams will be 400 points.

GRADING: Each student's grade will be based on a percentage of the number of total possible points determined as follows:

3 Unit Tests 300 points (100 points each)

Final Exam 100 points Homework 100 points

$$A = 90 - 100\% B = 80 - 89\% C = 70 - 79\% D = 60 - 69\% F = 0 - 59\%$$

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. The use of a cellphone on an exam is considered academic dishonesty.

Explanation of Grading Policy: Assignments are given in this course for a reason: it has been proven that

students who work each set of exercises in the order in which they are presented are more likely to be successful in math courses than those students who do not. Therefore, if you wish to be successful in this course, do all assignments as thoroughly as possible as they are assigned. Test dates will be announced well in advance of administration. No homework or test extensions will be granted.

No makeup tests will be given after the test has been administered in class. The first missed test grade will be replaced by your grade on the final exam. Any subsequently missed test will receive the grade of 0 (zero). If you do not miss any tests, the final can replace your lowest grade on other tests.

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

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Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

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Counseling Services:

Monticello Campus: Student Success Center, Room 204D, (870) 460-1554

Crossett Campus: Student Services, 870-460-2024 McGehee Campus: Student Services, 870-460-2128

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The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

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The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

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Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Monticello Campus: Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Crossett Campus Tutoring: Room #105 (tutoring hours are posted)

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit **and** has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

This syllabus is a working document and all class dates and policies can be changed at any time without prior notice.

ALL UAM COVID POLICIES WILL BE PRACTICED!!!!!!

University of Arkansas at Monticello

School of Mathematics and Natural Sciences Course Syllabus

MATH 2255 01 (1412) Calculus 1, 5 credit hours

Fall 2021 MW 8:10am – 9am, TuTh 8:10-9:30, SC A3

Instructor Name: Lura Cooper Instructor Location of Office: A20

Instructor Phone: 870-460-1916 Instructor Email: SandlinLE@uamont.edu

Office Hours: MTWTh 11:00am - 1:00PM F 8:00am-9am, 10am-11am

By appointment

Course Title and Credit Hours: MATH 2255(ACTS Equivalent # Math 2405), Calculus I, 5 credit hours

Course Prerequisites: Trigonometry, MATH 1033(ACTS Equivalent #Math 1203), and College Algebra, Math 1043(ACTS Equivalent #Math 1103), or Precalculus, MATH 1175 (ACTS Equivalent # Math 1305).

Required Text and Materials:

All students must have access to a graphing calculator. Strongly recommended models are TI-83, TI-83 Plus or the TI-84 Plus. Other calculators of equal capability may be used, but it is the student's responsibility to understand how to use them.

A Texas Instruments TI-89 graphing calculator is recommended for checking your answers. Calculators such as the TI-89 that have a CAS system should not be used in the class because they are not allowed on the examinations.

Herman, Edwin, and Gilbert Strang. *Calculus*. OpenStax, Rice University, 2018. Online bookstore: <u>UAM</u> Bookstore

Blackboard Supplemental Student Success Support:

This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description:

The purpose of this course is developing the fundamentals of differential and integral calculus which includes both the ability to perform manipulations and conceptual understanding of basic themes. Specific objectives are: limits, derivatives, rate of change, integrals, and applications of both integrals and derivatives.

Student Learning Outcome: By the conclusion of the course, you should know

Chapter 1: Review of Algebra

- 1.1: Functions
- 1.2: A Catalog of Essential Functions
- 1.3: Transformations and Operations of Functions
- 1.4: Graphing Calculators
- 1.5: Exponential Functions
- 1.6: Inverse and Logarithmic Functions

Chapter 2A: Limits

- 2.1: A preview of Calculus
- 2.2: The Limit of a Function

- 2.3: Limit Laws
- 2.4: Continuity
- 2.5: The precise Definition of a Limit TEST 1

Chapter 3A: Differentiation Rules

- 3.1: Defining the Derivative
- 3.2: The Derivative as a Function
- 3.3: Differentiation Rules Test 2

Chapter 3B: Differentiation Rules

- 3.4: Derivatives as Rates of Changes
- 3.5: Derivatives of Trigonometric Functions
- 3.6 The Chain Rule
- 3.7: Derivatives of Inverse Functions
- 3.8: Implicit Differentiation
- 3.9: Derivatives of Exponential and Logarithmic Functions TEST 3

Chapter 4: Applications of Differentiation

- 4.1: Related Rates
- 4.3: Maximum and Minimum Values
- 4.4: Mean Value Theorem
- 4.5: Derivatives and the Shape of the Graph
- 4.6: Limits at Infinity and Asymptotes
- 4.7: Applied Optimization Problems
- 4.8 L'Hospital's Rule TEST 4
- 4.10: Antiderivatives

Chapter 5: Integrals

- 5.1: Approximating Areas
- 5.2: The Definite Integral
- 5.3: The Fundamental Theorem of Calculus
- 5.4: Integration Formulas and the Net Change Theorem
- 5.5: The Substitution Rule
- 5.6: Integrals Involving Exponential and Logarithmic Functions TEST 5

Tentative Teaching Schedule (subject to change) CAL 1 A3

| 8/17 | Syllabus, 2.1 | 10/11 | 3.8 |
|----------|------------------|--------------|-----------|
| 8/18 | 2.1,2.2 | 10/12 | 3.8 |
| 8/22 | 2.1, 2.2 | 10/13 | TEST3 |
| 8/23 | 2.2 | 10/17 | 4.1 |
| 8/24 | 2.3 | 10/18 | 4.1 |
| 8/25 | 2.3, | 10/19 | 43 |
| 8/29 | 2.4, quiz | 10/20 | 4.3 |
| 8/30 | 2.4 | 10/23 | 4.4 |
| 8/31 | 2.5 | 10/24 | 4.4 |
| 9/5 | 2.5 | 10/25 | Quiz, 4.5 |
| 9/6 Tues | TEST 1 | 10/26 | 4.5 |
| 9/7 | 3.1 | 10/27 | 4.6, |
| 9/8 | 3.1, 3.2 | 10/30 | 4.7 |
| 9/12 | 3.2 | 11/1 | 4.8 |

| 9/13 | 3.3 quiz | 11/2 | 4.8 |
|-------|------------------|-------------------|---------------|
| 9/14 | 3.3 | 11/3 | 4.8 |
| 9/15 | 3.3 | 11/7 | Review |
| 9/19 | 3.3 | <mark>11/8</mark> | TEST 4 |
| 9/20 | TEST 2 | 11/9 | 4.9 |
| 9/21 | 3.4 | 11/10 | 5.1, |
| 9/22 | 3.4 | 11/14 | 5.2 |
| 9/26 | 3.4 | 11/15 | 5.2, quiz |
| 9/27 | 3.5 | 11/16 | 5.3 |
| 9/28 | 3.5 | 11/17 | 5.4 |
| 9/29 | 3.5 | 11/28 | 5.5 |
| 10/3 | 3.6 | 11/29 | 5.6 |
| 10/4 | 3.6 | 11/30 | 5.6 |
| 10/5 | 3.7, quiz | 12/1 | TEST 5 |
| 10/6 | 3.7 | 12/2 | Review |
| 10/10 | 3.8 | 12/5 Monday | FINAL 10:30AM |

Special dates of concern: F22

Fall 22

August 17 (Wed) - First day of classes for sessions I & 8WI.

August 19 (Fri) - Last day to register or add classes.

August 23 (Tues) - Tuition and fees due by 3:30 p.m. for all registered students.

September 5 (Mon) - Labor Day Holiday. Offices and classes closed.

October 26 (Wed) - Last day to drop a session 1 class or withdraw. Grade(s) will be W.

October 31 (Mon) - Registration for Spring begins.

November 11 (Fri) - Registration for Spring ends. Deadline to apply for May graduation.

November 21-25 (Mon-Fri) - Fall Break. Classes closed. Offices closed on 24 & 25.

December 2 (Fri) - Last day of classes for sessions 1

December 5-8 (Mon-Thurs.) - Final exam period.

December 9 (Fri) - Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement. UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

Students are expected to attend all required class sessions during the semester. I keep track of absences regularly, this is the university policy, and I am required to send the last date of attendance periodically. You are expected to attend all class meetings and make a serious effort to do the assigned work. Poor attendance is the greatest factor in unsuccessful performance in this course and college in general. You cannot possibly learn the material if you do not go to class. If the number of unexcused absences exceeds 8 hours the student may not be able to complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Special Policies:

If one test is missed, then the final exam grade will be substituted for that test grade. If two or more tests are missed, then a grade of zero will be given for each missed test other than the first.

If no tests are missed and the final exam grade is greater than the lowest test grade, then the final exam grade will be substituted for that test grade.

Make-up tests will be allowed on an individual, case-by-case basis. To make-up a test, a student must present evidence of a serious circumstance that prevented them from taking the exam on the scheduled day. All make-up exams must be completed within two class days of the scheduled exam day. If circumstances will not allow a student to make-up the exam within the specified time-period, then the student will receive a zero for the test and the final exam score will replace the zero for the first occurrence. All subsequent missed exams will keep a score of a zero. If you will miss an exam due to a University extracurricular activity, **you must arrange to take the exam before the scheduled test date**. If you fail to do this, you will receive a score of zero for the exam.

The two lowest homework assignments are dropped at the end of the semester. Extensions on homework are **NOT** granted. Homework is expected to be completed before the scheduled exam. **Homework is due by 8:00** on the day of the exam or quiz.

Cheating and plagiarism are unacceptable activities and a grade of zero will be given for every case of verified cheating. In addition, all occurrences will be reported to the Vice Chancellor for Academic Affairs for other possible actions.

Students are expected to attend all required class sessions during the semester. I keep track of absences regularly; this is the university policy and I am required to send the last date of attendance periodically. You are expected to attend all class meetings and make a serious effort to do the assigned work. Poor attendance is the greatest factor in unsuccessful performance in this course and college in general. You cannot possibly learn the material if you do not go to class. If the number of unexcused absences exceeds 8 hours the student may not be able to complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course.

If a circumstance occurs which prevents a student from completing the course in the given timeframe, the student may request a grade of Incomplete for the course, if the following criteria are met:

The student must have a passing grade at the time of the disruption.

The student must have completed at least 70% of the coursework.

The request must be in writing with appropriate documentation attached and must be received at least 48 hours

before the deadline for submission of grades to the Registrar.

Disorderly Conduct: Any behavior which disrupts the regular or normal functions of the University community, including behavior which breaches the peace or violates the rights of others is prohibited under the Student Conduct Code. In particular, all cell phones, beepers, etc. must be turned off and out of sight during class.

If you fail first quiz and/or test you have to attend tutoring in the Computer Lab in Room SC A-23 or outside instructor assistance. Extent of failure determines amount of time required for tutoring. In addition, you may have a mandatory 30 minutes office visit per week.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 5 hours per week | 66 hours |
| | Taking tests (1.5 hour for each test) | 9 hours |
| | TOTAL: | 75 hours |
| Preparation (outside of | Reviewing class notes: 1.7 hour per week | 25.5 hours |
| class) | Homework: 10 hours per week | 150 hours |
| | TOTAL: | 175.5 hours |
| | Taking the final exam: | 2 hours |
| Overall Total | | 252.5 hours |

EXPECTATIONS OF THE STUDENT:

This course is not a particularly difficult subject if it is approached with the right attitude and commitment. Consistent effort is necessary. Seek assistance when you encounter a difficulty -- not after the troublesome topic has been used to develop other topics and

a simple misunderstanding has become a major impediment. You should commit at least two hour of study time for each hour of lecture.

Grading Policy:

Each student's grade will be determined by quizzes/homework, chapter tests, and a final exam. Quizzes are normally announced in advance and most homework is assigned/graded through MyOpenMath (linked on BlackBoard). Tests cover those topics presented in the text and the lecture. The final exam is comprehensive. The course grade is determined as follows:

| Quizzes/ % |
|--|
| Homework18 % |
| Exams75% |
| Grade Assignment: |
| Grades will be assigned on the following basis: |
| A = 90 - 100. $B = 80 - 89$. $C = 70 - 79$. $D = 60 - 69$. $F = 59$ and below |

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

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University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

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Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

CDC and UAM recommendations will be followed.

SCHOOL OF MATHEMATICAL & NATURAL SCIENCES COURSE SYLLABUS PROBABILITY & STATISTICS (Math 3403) Fall 2021

Instructor: Dr. H. Sayyar Office: Science Center A-19 Phone: 460-1366 e-mail:

sayyar@uamont.edu

Office Hours: MWF: 10:00-11:00 am & 2:00-3:00 pm TH: 8:30-9:30 am & 2:00-3:00 pm

Other hours: by appointment.

Course: Math 3403, Probability and Statistics, 3 credit hours.

Course prerequisite: Grades of C or better in Calculus Series (Math 2254 - Math 2274.)

REQUIRED TEXT: Enhanced WebAssign, an online homework system which comes with e-text (Introduction to Probability & Statistics, 15th edition, by: Mendenhall, Beaver, and Beaver, published by Brooks/Cole-Cengage), and contains tutorials. The course key is: **uamont 3626 7461**. Students should enroll in WebAssign as soon as possible. A graphing calculator is recommended. We will also use MS Excel for statistical computations.

Blackboard Supplemental Student Success Support: This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: This course provides an elementary introduction to probability and statistics with applications. Topics include: describing data, basic combinatorics, random variables, probability distributions, inference, hypothesis testing, confidence intervals, linear regression, and ANOVA. This course is designed to enable students to grasp important concepts in probability and statistics and learn how to apply these concepts in solving problems in both abstract and applied settings.

Learning Outcomes: By the end of this course, you should be able to:

You should be able to describe data with graphs such as pie charts, bar charts, line charts, histograms, and several other charts.

You should be able to describe data with numerical measures such as measure of center (Mean and Median), measure of variability, quartiles, percentiles, standard deviation.

You should be familiar with the basic fundamental concepts of probability such as events, sample space, , random variables, distributions, independence, and many more.

You should be familiar with the connection between probability and statistics.

You should be familiar with sampling distributions, estimation, test of hypotheses, inference from samples, analysis of variance, regression, and correlation, and many other topics

Course Assignments/Assessments: There will be three types of assessments:

Homework: 70 to 80 percent of homework will be done on WebAssign and the remaining 20 to 30 percent will be collected and graded manually. An honest and committed effort on homework will pay great dividends at test time. You should begin working on an assignment for a given section as soon as the section is covered. Note any exercises you have trouble with and bring them to class for discussion. If you have any difficulty, the time to address it is early so it does not grow into a bigger problem.

Chapter Tests: We will have 7 chapter tests throughout the semester. The content of each test is roughly indicated in the table below. The tentative date of each test is given in the table below. Each chapter test consists of an in-class part (60%) and a take-home part (40 %.)

Final Exam: A comprehensive final exam will be given upon the request of students who want to replace a low score on one test.

Grading: There is a maximum of 800 points to earn:

Homework/quizzes: 100 Tests: 700 Final Exam: 100

Final grades are assigned according to the following scale:

A: 90 – 100% B: 80 - 89% C: 70 - 79% D: 60 – 69% F: 0 – 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance

Course Sequence and Schedule: The following dates are <u>tentative</u> and will be revised as necessary.

| Topic | Test |
|----------------------------|---------------------------------|
| Sections 1.1-1.4 & 2.1-2.4 | Test 1 |
| Sections 4.1-4.5 & 5.1-5.4 | Test 2 |
| Sections 6.1-6.3 & 7.1-7.5 | Test 3 |
| Sections 8.1-8.7 | Test 4 |
| Sections 9.1-9.5 | Test 5 |
| Sections 10.1-10.6 | Test 6 |
| Sections 11.1-11.7 | Test 7 |
| FINAL EXAM (Comprehensive) | Monday, Dec. 9, 8:00 – 10:00 am |

Course Content:

CHAPTER 1: DESCRIBING DATA WITH GRAPHS

CHAPTER 2: DESCRIBING DATA WITH NUMERICAL MEASURES

CHAPTER 3: DESCRIBING BIVARIATE DATA (will not be covered)

CHAPTER 4: PROBABILITY AND PROBABILITY DISTRIBUTIONS

CHAPTER 5: SEVERAL USEFUL DISCRETE DISTRIBUTIONS

CHAPTER 6: THE NORMAL PROBABILITY DISTRIBUTION

CHAPTER 7: SAMPLING DISTRIBUTIONS

CHAPTER 8: LARGE-SAMPLE ESTIMATION

CHAPTER 9: LARGE-SAMPLE TESTS OF HYPOTHESES

CHAPTER 10: INFERENCE FROM SMALL SAMPLES

CHAPTER 11: THE ANALYSIS OF VARIANCE

CHAPTER 12: LINEAR REGRESSION AND CORRELATION

Special Dates of Concern:

August 18 (Wed) – First day of classes.

August 20 (Fri) – Last day to register or add classes.

August 23 (Mon) – Tuition and fees due by 3:30 pm.

September 6 (Mon) - Labor Day Holiday.

October 27 (Wed) - Last day to drop a session 1 class with a W or withdraw from the term with grades of W.

November 1 (Mon) - Registration for Spring 2022 begins.

November 12 (Fri) - Registration for Spring ends.

November 22-26 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes.

December 3 (Fri) - Last day of classes

December 6-9 (Mon-Thurs.) - Final exam period.

December 10 (Fri) – Commencement

UAM Attendance Policy:

Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.

Regardless of the reasons for a student missing, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw before or on October 27 receive a grade of W. Notre that withdrawing after October 27 will result a grade F.

Course Attendance Policy: If an absence is unexcused, the student may not make up any test or homework missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis, and are determined to be excused or unexcused at the sole discretion of the instructor. If a student misses six consecutive class meetings without informing the instructor of a valid reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system.

It is the student responsibility to make sure he/she will sign the attendance sheet, same signature each and every time. If a student leaves before the class is dismissed by the instructor, the student will be considered to be absent.

Special Policies:

A makeup test is allowed only for excused absences. In such cases proper arrangements must be <u>made in advance</u> to take the test <u>early</u>. Otherwise, the student must make up the test within three days of returning to class or receive a score of 0. If a test is missed, the final exam score will replace the missed test score. If more than one test is missed, the final exam score will replace the first missed test score, and all subsequent missed tests will be assigned a score of zero. If no tests are missed, the final exam score, if higher, will replace the lowest test score.

To prevent distractions to others, all cell phones must be turned off and put away in class. If you fail to turn off and put away your cell phone, you will be asked to leave the classroom.

A student is not allowed to use a cell phone, tablet, or a computer as a calculator on an exam or quiz. Any violation of this policy will be treated as an incidence of cheating, and the student will receive a 0 for the assignment.

A student may receive a grade of Incomplete only if he/she has a valid reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 65% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Homework extensions will not be granted. It is the student's responsibility to have an updated computer with

reliable internet connection.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 39 hours |
| | Taking tests (1.5 hour for each of four tests) | 6 hours |
| | TOTAL: | 45 hrs |
| Preparation (outside of | Reviewing class notes: 1 hour per week | 15 hours |
| class) | Homework: (on WebAssign) 6 hours per week) | 90 hours |
| | | |
| | TOTAL: | 105 hours |
| Overall Total | | 150 hours |

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance.

TECHNICAL SUPPORT INFORMATION

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Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

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Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

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Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

Students with disabilities: It is the policy of the University of Arkansas at Monticello to accommodate individuals

with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the

responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course.

Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall

Room 124; phone 870 460-1226; TDD 870 460-1626; Fax 870 460-1926; email: whitingm@uamont.edu.

SCHOOL OF MATHEMATICAL & NATURAL SCIENCES COURSE SYLLABUS

Number Theory (Math 3413) Fall 2022

Instructor: Dr. H. Sayyar Office: Science Center A-19 Phone: 460-1366 e-mail:

sayyar@uamont.edu

Office Hours: MWF: 10:00-11:00 am & 2:00-3:00 pm TH: 9:00-10:30 am & 2:00-3:00 pm

Other hours: by appointment.

Course: Math 3413, Number Theory, 3 credit hours.

Course prerequisite: Grades of C or better in Calculus Series (Math 2254 - Math 2274.)

REQUIRED TEXT: There is no book assigned. The instructor will furnish students with notes on the subject throughout the semester.

Blackboard Supplemental Student Success Support: This course also has a Blackboard page for supplemental resources and course related materials.

Course Description and Student Learning Outcome:

Upon successful completion of this course a student will demonstrate knowledge and understanding of topics such as Mathematical induction, divisibility, prime numbers, congruences, factorization, arithmetic functions, quadratic reciprocity, the Chinese Remainder Theorem, primitive roots, Diophantine equations, cryptography methods and their applications, and Pythagorean Triplets.

Course Contents

Preliminaries

- 1.1 Mathematical Induction
- 1.2 Binomial Theorem

Divisibility Theory in the Integers

- 2.1 Early Number Theory
- 2.2 The Division Algorithm
- 2.3 The Greatest Common Divisor
- 2.4 The Euclidean Algorithm
- 3.3 The Diophantine Equation ax + by = c

Primes and Their Distribution

- 3.1 The Fundamental Theorem of mathematics
- 3.2 The Sieve of Eratosthenes
- 3.3 The Goldbach Conjecture

The Theory of Congruences

- 4.1 Carl Friedrich Gauss
- 4.2 Basic Properties of Congruence
- 4.3 Binary and Decimal Representation of Integers.
- 4.4 Linear Congruence and the Chinese Remainder Theorem

Other Topics

- 5.1 Fermat-Kraitchik Factorization Method
- 5.2 The Greatest Integer Function
- 5.3 Some Properties of the Phi-Function
- 5.4 Cryptography

Course Assignments/Assessments: There will be three types of assessments:

Homework: Homework problems will regularly be assigned, collected, and graded.

Tests: There will be one test for each chapter covered. Each test consists of an in-class part (50%) and a takehome part (50 %.)

Final Exam: A comprehensive final exam will be given upon the request of students who want to replace a low score on one test.

Grading: Each test is worth 100 points and homework is worth 100 points. Final grades are assigned according to the following scale:

A: 90 – 100% B: 80 - 89% C: 70 - 79% D: 60 – 69% F: 0 – 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance

Special Dates of Concern:

August 17 (Wed) - First day of classes

August 19 (Fri) - Last day to register or add classes.

August 23 (Tues) - Tuition and fees due by 3:30 p.m

September 5 (Mon) - Labor Day Holiday.

October 26 (Wed) - Last day to drop a session 1 class with a W or withdraw from the term with grades of W.

October 31 (Mon) - Registration for Spring 2022 begins.

November 11 (Fri) - Registration for Spring ends.

November 21-25 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes.

December 2 (Fri) - Last day of classes

December 5-8 (Mon-Thurs.) - Final exam period.

December 9 (Fri) – Commencement.

UAM Attendance Policy:

Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.

Regardless of the reasons for a student missing, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw before or on October 27 receive a grade of W. Notre that withdrawing after October 27 will result a grade F.

Course Attendance Policy: If an absence is unexcused, the student may not make up any test or homework missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis, and are determined to be excused or unexcused at the sole discretion of the instructor. If a student misses six consecutive class meetings without informing the instructor of a valid reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system.

It is the student responsibility to make sure he/she will sign the attendance sheet, same signature each and

every time. If a student leaves before the class is dismissed by the instructor, the student will be considered to be absent.

Special Policies:

A makeup test is allowed only for excused absences. In such cases proper arrangements must be <u>made in</u> <u>advance</u> to take the test <u>early</u>. Otherwise, the student must make up the test within three days of returning to class or receive a score of 0. If a test is missed, the final exam score will replace the missed test score. If more than one test is missed, the final exam score will replace the first missed test score, and all subsequent missed tests will be assigned a score of zero. If no tests are missed, the final exam score, if higher, will replace the lowest test score.

To prevent distractions to others, all cell phones must be turned off and put away in class. If you fail to turn off and put away your cell phone, you will be asked to leave the classroom.

A student is not allowed to use a cell phone, tablet, or a computer as a calculator on an exam or quiz. Any violation of this policy will be treated as an incidence of cheating, and the student will receive a 0 for the assignment.

A student may receive a grade of Incomplete only if he/she has a valid reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 65% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Homework extensions will not be granted. It is the student's responsibility to have an updated computer with reliable internet connection.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 39 hours |
| | Taking tests (1.5 hour for each of four tests) | 6 hours |
| | TOTAL: | 45 hrs |
| Preparation (outside of | Reviewing class notes: 1 hour per week | 15 hours |
| class) | Homework: (on WebAssign) 6 hours per week) | 90 hours |

| | TOTAL: | 105 hours |
|---------------|--------|-----------|
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UNIVERSITY OF ARKANSAS AT MONTICELLO

School of Mathematical and Natural Sciences
MATH 3423 College Geometry Course Syllabus

Fall 2022, MW 12:00 – 1:30 p.m., SC A3

Instructor Name: V. Lynn Fox
Location of Office: Science Center, Room A-24
Instructor Phone: 870-460-1416
Instructor Email Address:

fox@uamont.edu

Office Hours: M-TH 10:00 – 11:00, 1:30 – 2:30; F 11:00 – 1:00

Course Title and Credit Hours: MATH 3423 College Geometry, 3 credit hours

Prerequisites: A grade of at least a C in MATH 2255 (ACTS# Math 2405) Calculus I

Required textbooks, workbooks, supplementary materials:

Required: A graphing calculator (such as the TI-84 line) A calculator equipped with a CAS system is not

allowed on exams.

For additional textbook information, you may go to the online bookstore: <u>UAM Bookstore</u>

Blackboard Supplemental Student Success Support: This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions

Course Description: Logic and Euclidean geometry. Required of all prospective secondary mathematics teachers.

Student Learning Outcomes: By the conclusion of the course you should be able to

Demonstrate working knowledge of Euclidean geometry Construct geometric figures by a variety of methods

Prove fundamental Euclidean geometry theorems

Course Assignments/Assessments: All exams are closed book and will be given on-campus. Homework will be given on paper and will be due two class days after it was assigned.

| Exam | Time Frame | Topics | |
|--|---------------|-----------------------|--|
| Exam 1 | Weeks 1 – 3 | Geometric Figures | |
| Exam 2 | Weeks 4 – 6 | Congruent Triangles | |
| Exam 3 | Weeks 7 – 9 | Quadrilaterals | |
| Exam 4 | Weeks 10 – 13 | Similar Triangles | |
| Exam 5 | Weeks 14 – 16 | Veeks 14 – 16 Circles | |
| Final Exam (Cumulative) Monday, December 5 @ 1:00 p.m. | | | |

Special Dates of Concern:

August 17 (Wed) –First day of classes.

August 19 (Fri) – Last day to register or add classes.

August 23 (Tues) – Tuition and fees due by 3:30 pm.

September 5 (Mon) - Labor Day Holiday.

October 26 (Wed) - Last day to drop classes with a W or withdraw from all classes with a W.

October 31 (Mon) - Registration for Spring 2023 begins.

November 11 (Fri) - Registration for Spring ends.

November 21-25 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes.

December 2 (Fri) - Last day of classes

December 5-8 (Mon- Thurs.) - Final exam period. December 9 (Fri) – Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement. UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements: Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed-assignments:

Exact exam dates will be announced, in class and via email, no later than one week before a scheduled exam.

Make-up exams are allowed at the discretion of the instructor. If the instructor determines there was a valid reason to miss class on the day of an assessment, then the missed exam must be made up by the set time limit provided by the instructor. The length of the time limit to take a missed assessment is also at the discretion of the instructor. Otherwise, all missed exams will count as zero. As a rule of thumb, have a verifiable excuse (e.g. doctor's note, event program) when requesting a make-up assessment.

Late Work Policy: Late homework will be assessed a late penalty of 30% on the first class meeting it is late, 60 % on the second class meeting it is late, and 90% on the third class meeting it is late. After the third class meeting in which the late homework is not submitted, the homework will be assigned a grade of zero for the student.

If you are involved in a University extracurricular activity that results in you missing class on the day of an exam and/or quiz, you MUST make arrangements before the date of the exam and/or quiz to take it before you leave for the event. Failure to do so will result in a zero on the assessment.

Students who miss class are responsible for learning the material presented on the day of their absence. They should obtain notes/copies of handouts/etc. from classmates who attended class that day.

Students who miss class are responsible for submitting homework as well as taking assessments by the scheduled dates of these assignments, regardless of the reason(s) for the students' absences.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before the last day of class.

The use of cell phones and/or other electronic devices (excluding permissible calculators) is NOT allowed. Students that violate this policy will be removed from class.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 40 hours |
| | Taking exams (1.25 hour for each of four exams) | 5 hours |
| | TOTAL: | 45 hrs |
| Preparation (outside of | Reviewing class notes: 2 hours per week | 30 hours |
| class) | Homework: 4 hours per week | 60 hours |
| | TOTAL: | 90 hours |
| | | |
| | Cumulative Total: | 135 hours |

Homework: Homework for this class will be completed out of class. Assignment details will be listed on Blackboard. Homework, in total, is worth 20% of your grade.

Class Assessments: There will be 5 in-class, closed book exams. Cumulatively, exams will be worth 60% of your grade. Additionally, the final exam will be in-class and closed book on its schedule date. It is worth 20% of your grade.

Grading: Each student's grade will be based on a percentage of the number of total possible points determined as follows:

5 Unit Tests 60% of grade Homework 20% of grade Final Exam 20% of grade

A = 90 - 100% B = 80 - 89%C = 70 - 79% D = 60 - 69% F = 0 - 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

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Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

This syllabus is a working document and all class dates and policies can be changed at any time without prior notice.

SCHOOL OF MATHEMATICAL & NATURAL SCIENCES COURSE SYLLABUS

Abstract Algebra (Math 3453) Fall 2021

Instructor: Dr. H. Sayyar Office: Science Center A-19 Phone: 460-1366 e-mail:

sayyar@uamont.edu

Office Hours: MWF: 10:00-11:30 am & 2:00-3:00 pm TH: 9:00-11:00 am & 2:00-3:00 pm

Other hours: by appointment.

Course: Math 3453, Abstract Algebra, 3 credit hours.

Course prerequisite: Grades of C or better in Calculus Series (Math 2254 - Math 2274.)

REQUIRED TEXT: There is no book assigned. The instructor will furnish students with notes on the subject throughout the semester.

Blackboard Supplemental Student Success Support: This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description:

Algebra is defined to be the study of algebraic structures. Mathematicians study algebraic structures from a general point of view, compare different structures, and find relationships between them. This course is the study of elementary number theory as well as a study of some basic algebraic structures such as rings, integral domains, fields, factorization, polynomial rings, field extensions, quotient fields.

Course Contents

Preliminaries

- 1.1 Sets and Functions
- 1.2 Well-Ordering and Induction
- 1.3 Equivalence Relations

Arithmetic in Z

- 2.1 The division Algorithm
- 2.2 Divisibility
- 2.3 Primes and Unique Factorization

Congruence in Z and Modular Arithmetic

- 3.1 Congruence and Congruence Classes
- 3.2 Modular Arithmetic
- 3.3 The Structure of \mathbb{Z}_p When p Is Prime

Rings

- 4.1 Definition and Examples of Rings
- 4.2 Basic Properties of Rings
- 4.3 Isomorphism and Homomorphism
- 4.4 Associates in Commutative Rings*

Polynomial Ring F[X]

- 5.1 Polynomial Arithmetic and the Division Algorithm
- 5.2 Divisibility in F[X]
- 5.3 Irreducible and Factorization
- 5.4 Polynomial Functions, Roots, and Reducibility
- 5.5 Irreducibility in $\mathbb{Q}[X]^*$

Congruence in F[X]

- 6.1 Congruence in F[X] and Congruence Classes
- 6.2 Congruence Class Arithmetic

Ideals and Quotient Rings

- 7.1 Ideals and Congruence
- 7.2 Quotient Rings and Homeomorphisms

Course Assignments/Assessments: There will be three types of assessments:

Homework: Homework problems will regularly be assigned, collected, and graded.

Tests: We will have 6-chapter tests throughout the semester, one test for each chapter 1-5 and one for chapters 6 & 7. A test will be given right after a chapter is covered. Each test consists of an in-class part (50%) and a take-home part (50%).

Final Exam: A comprehensive final exam will be given upon the request of students who want to replace a low score on one test.

Grading: There is a maximum of 700 points to earn:

Homework: 100 Tests: 600

Final grades are assigned according to the following scale:

A: 90 – 100% B: 80 – 89% C: 70 – 79% D: 60 – 69% F: 0 – 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance

Course Sequence and Schedule: The following dates are tentative and will be revised as necessary.

| Topic | Test |
|--------------|--------|
| Chapter 1 | Test 1 |
| Chapter2 | Test 2 |
| Chapter 3 | Test 3 |
| Chapter 4 | Test 4 |
| Chapter 5 | Test 5 |
| Chapter 6 &7 | Test 6 |

Special Dates of Concern:

August 18 (Wed) -First day of classes.

August 20 (Fri) – Last day to register or add classes.

August 23 (Mon) – Tuition and fees due by 3:30 pm.

September 6 (Mon) - Labor Day Holiday.

October 27 (Wed) - Last day to drop a session 1 class with a W or withdraw from the term with grades of W.

November 1 (Mon) - Registration for Spring 2022 begins.

November 12 (Fri) - Registration for Spring ends.

November 22-26 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes.

December 3 (Fri) - Last day of classes

December 6-9 (Mon-Thurs.) - Final exam period.

December 10 (Fri) – Commencement

UAM Attendance Policy:

Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored

events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.

Regardless of the reasons for a student missing, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw before or on October 27 receive a grade of W. Notre that withdrawing after October 27 will result a grade F.

Course Attendance Policy: If an absence is unexcused, the student may not make up any test or homework missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis, and are determined to be excused or unexcused at the sole discretion of the instructor. If a student misses six consecutive class meetings without informing the instructor of a valid reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system.

It is the student responsibility to make sure he/she will sign the attendance sheet, same signature each and every time. If a student leaves before the class is dismissed by the instructor, the student will be considered to be absent.

Special Policies:

A makeup test is allowed only for excused absences. In such cases proper arrangements must be <u>made in</u> <u>advance</u> to take the test <u>early</u>. Otherwise, the student must make up the test within three days of returning to class or receive a score of 0. If a test is missed, the final exam score will replace the missed test score. If more than one test is missed, the final exam score will replace the first missed test score, and all subsequent missed tests will be assigned a score of zero. If no tests are missed, the final exam score, if higher, will replace the lowest test score.

To prevent distractions to others, all cell phones must be turned off and put away in class. If you fail to turn off and put away your cell phone, you will be asked to leave the classroom.

A student is not allowed to use a cell phone, tablet, or a computer as a calculator on an exam or quiz. Any violation of this policy will be treated as an incidence of cheating, and the student will receive a 0 for the assignment.

A student may receive a grade of Incomplete only if he/she has a valid reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 65% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Homework extensions will not be granted. It is the student's responsibility to have an updated computer with reliable internet connection.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert. Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the

timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for |
|-------------------------|--|------------------------------|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | the average student 39 hours |
| | Taking tests (1.5 hour for each of four tests) | 6 hours |
| | TOTAL: | 45 hrs |
| Preparation (outside of | Reviewing class notes: 1 hour per week | 15 hours |
| class) | Homework: (on WebAssign) 6 hours per week) | 90 hours |
| | | |
| | TOTAL: | 105 hours |
| Overall Total | | 150 hours |

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance.

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

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As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor

Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

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Students with disabilities: It is the policy of the University of Arkansas at Monticello to accommodate individuals

with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the

responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course.

Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall

Room 124; phone 870 460-1226; TDD 870 460-1626; Fax 870 460-1926; email: whitingm@uamont.edu.

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICAL AND NATURAL SCIENCE MATH 3463 LINEAR ALGEBRA COURSE SYLLABUS Spring 2022 – MWF

10:10-11:00 a.m.

Instructor Name: V. Lynn Fox

Instructor Location of Office: Science Center A-24

Instructor Phone: 870-460-1416

Instructor Email Address: fox@uamont.edu

Office Hours: MWF 9:00 – 10:00 a.m., MW 12:00 – 1:00 p.m.; TH 9:00 – 11:00 a.m., 12:30 – 1:00 p.m.

Course Title and Credit Hours: MATH 3463, Linear Algebra, 3 credit hours

Prerequisites: A grade of C or better in MATH 2255, Calculus I

Required textbooks, workbooks, supplementary materials: Opensource textbook which can be

downloaded at https://lyryx.com/first-course-linear-algebra/ and a non-CAS graphing calculator are required.

Online bookstore: **UAM Bookstore**

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: The algebra of vector spaces, linear transformations, eigenvalues, eigenvectors, orthogonality, and inner product spaces.

Student Learning Outcomes: By the end of the course the student should be able to

Understand the relationship between matrices and systems of linear equations.

Solve a system of linear equations by Gauss-Jordan elimination.

Perform basic matrix operations.

Find the inverse of an invertible matrix.

Understand vectors and the geometry of space.

Find equations of lines and planes.

Understand the concept of linear independence.

Understand the vector space properties of Euclidean *n*-space, subspaces, bases, and dimension.

Compute the eigenvalues and eigenvectors of a given matrix.

Understand the concepts of similarity and diagonalization.

Understand the relationship between linear transformations and matrices.

Understand the concepts of orthogonality and inner product spaces.

Compute the norms and distance functions in inner product spaces.

To understand the concepts of linear algebra in an abstract setting.

Course Assignments/Assessments: Assessments in the course will include homework and exams. Homework assignments are available through Blackboard and are open book assignments. Exams will be given in-class and will be closed-book. Homework will be worth 20% of the course grade and exams will be worth 80% of the course grade.

Tentative Schedule:

| Topics | Textbook | Homework | Due Date | Exam |
|---|----------------------------------|---|--|-----------------------------|
| Ch. 1: Systems of Equations | 1.1 – 1.2.4 | HW 1 HW 2 HW 2.5 HW 3 | W, 1/19 M, 1/24 W, 1/26 F, 1/28 | Exam 1: Monday, January 31 |
| Ch. 2: Matrices Ch. 3: Determinants | 2.1, 3.1 | HW 5 HW 6 HW 7 | F, 2/04 M, 2/07 F, 2/11 | Exam 2: Monday, February 14 |
| Ch. 4: Vectors in \mathbb{R}^n Ch. 9: Vector Spaces | 4.1 – 4.5, 4.10, 9.1 – 9.4 | HW 8 HW 9 HW 10 HW 11 HW 12 | W, 2/23 F, 2/25 M, 3/7 W, 3/16 M, 3/28 | Exam 3: Wednesday, March 30 |
| Ch.5: Linear Transformations Ch. 7: Eigenvalues/Eigenvectors | 5.1 – 5.8, 7.1 – 7.2 | HW 13 HW 14 HW 15 HW 16 HW18 | W, 4/13 M, 4/18 W, 4/20 F, 4/22 W, 4/27 | Exam 4: Friday, April 29 |

Special Dates of Concern:

January 12 (Wed) –First day of class

January 14 (Fri) – Last day to register or add classes.

January 17 (Mon) – Martin Luther King Holiday. Offices and classes closed.

January 18 (Tues) - Tuition and fees due by 3:30 pm for all registered students. Students will be dropped at the end of the day unless payment or other payment arrangements have been made.

March 21-25 (Mon-Fri) – Spring Break

March 30 (Wed) – Last day to drop a session 1 class or withdraw from the term. Grade(s) will be W. April 4 (Mon) – Preregistration for Summer and Fall begins.

April 15 (Fri) – Preregistration for Summer and Fall ends. May 3 (Tues) – Study day (no classes)

May 5 (Thurs) – Final Exam for Linear Algebra, 1:00 – 3:00 p.m. May 13 (Fri) – Commencement

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

Class attendance is critical to the success of the student. If an absence is unexcused, the student may not make up any test or quiz missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis, and are determined to be excused or unexcused at the sole discretion of the instructor. If a student misses more than four consecutive class meetings without informing the instructor of a valid and documentable reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system, and unless the student withdraws from the course before the last date to drop, his/her grade for the course will be F. This policy will remain in effect even if the student subsequently returns to class.

Special Policies:

Homework is due at 11:59 p.m. on its due date. Students are allowed 3 Late Passes which will allow them to access missed homework up to 72 hours after its due date. Once the 72 hours have passed or a student has used all 3 Late Passes, a missed homework assignment is closed to the student for grading.

A makeup exam is allowed only for excused absences. In every case of absence for UAM-sponsored activities and whenever possible for other excused absences, arrangements must be <u>made in advance</u> to take the test <u>early</u>. If arranges are not made in advance to take the exam early, the student will receive a zero for the exam. If a test is missed with no excuse, the student will receive a score of 0 for the test. The final exam score, if higher, will replace the lowest test score.

The use of cell phones, tablets and computers are permitted in class for academic purposes only. If communication or internet accessible devices are used for non-academic purposes in class, the use of communication or internet accessible devices in the class will be revoked.

The use of a cell phone or computer as a calculator on a quiz or exam is not permitted, and any instance thereof will be considered cheating and will result in a grade of 0 for that assignment.

A student may receive a grade of Incomplete only if he/she has a valid and well-documented reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 70% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

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Work Required:

Academic Engagement:

Listening to lectures or participating in class activities - 38 hours

Taking tests -5 hours

Taking the final exam -2 hours

Preparation:

Reviewing class notes: 2 hours per week -30 hours

Homework: 4 hours per week – **60 hours** Overall Total Obligation: **135 hours**

Explanation of Grading Policy: There will be four unit tests given in the course. Each unit test will be announced at least a week in advance. In addition to the four unit tests, there will be a comprehensive final exam. These together with the homework will constitute the student's grade according to the following rule:

Homework -20%, Unit Exams -60%, Final Exam -20%

Grade Assignment:

Grading Scale:

A = 90 - 100 B = 80 - 89 C = 70 - 79 D = 60 - 69 F = 59 and below

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

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The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

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Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656 Email: whitingm@uamont.edu

Tutoring Center:

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Classroom Behavior/Disruption Policy

Students will not disturb normal classroom procedures and instruction. Disruptive conduct includes but is not limited to violent, noisy actions, profane or obscene language, intoxication, verbal abuse/slander, quarreling, fighting, threats to safety to oneself or others and failure to comply with the directions of a university official (reference UAM Student Handbook). A faculty member may, at his or her discretion, dismiss a disruptive student from the classroom for the balance of the class period and, at the faculty member's discretion, consider the missed class time as an unexcused absence.

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit, or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

This syllabus is a working document and all class dates and policies can be changed at any time without prior notice.

UNIVERSITY OF ARKANSAS AT MONTICELLO

School of Mathematical and Natural Sciences

MATH 3545 (ACTS# Math 3405) Calculus II Course Syllabus

Fall 2022, MW 11:10 – 12:00, TH 11:10 – 12:30, SC A3

Instructor Name: V. Lynn Fox **Instructor Phone:** 870-460-1416

Location of Office: Science Center, Room A-24 Instructor Email Address: fox@uamont.edu

Office Hours: M-TH 10:00 – 11:00, 1:30 – 2:30; F 11:00 – 1:00

Course Title and Credit Hours: MATH 3545 (ACTS# Math 3405), 5 credit hours

Prerequisites: A grade of at least a C in MATH 2255 (ACTS# Math 2405) Calculus I

Required textbooks, workbooks, supplementary materials:

Required: A graphing calculator (such as the TI-84 line) A calculator equipped with a CAS system is not allowed on exams.

Recommended: Openstax Calculus Volume 2, ISBN: 978-1-50669-807-6, https://openstax.org/details/books/calculus-volume-

For additional textbook information, you may go to the online bookstore: UAM Bookstore

Blackboard Supplemental Student Success Support: This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions

Course Description: The focus of this course is to develop the fundamentals of integral and differential equations calculus which include both the ability to perform manipulations and a conceptual understanding of the basic themes.

Student Learning Outcomes: By the conclusion of the course you should be able to

Understand and use techniques of integration.

Apply and evaluate integration techniques in real-world problems

- 3. Understand sequences and series and the methods used to determine their convergence or divergence.
- 4. Understand and apply the various tests for convergence of an infinite series.
- 5. Understand and apply the concepts of Taylor Polynomials

Model and solve real-world problems with differential equations

Apply calculus techniques to real world problems involving hyperbolic trig and polar equations.

Course Assignments/Assessments: All exams are closed book and will be given on-campus. Homework will be given on

paper and will be due two class days after it was assigned.

| Exam | Time Frame | Topics | | | | |
|---|---------------|-----------------------------------|--|--|--|--|
| Exam 1 | Weeks 1 – 3 | Integration | | | | |
| Exam 2 | Weeks 4 - 6 | Applications of Integration | | | | |
| Exam 3 | Weeks 7 – 8 | Additional Integration Techniques | | | | |
| Exam 4 | Weeks 9 – 10 | Basic Differential Eq | | | | |
| Exam 5 | Weeks 11 – 14 | Sequences and Series | | | | |
| | Weeks 15 – 16 | Taylor & MacLaurin Series | | | | |
| Final Exam (Cumulative) Wednesday, Dec. 7 @ 1:00 p.m. | | | | | | |

Special Dates of Concern:

August 17 (Wed) –First day of classes.

August 19 (Fri) – Last day to register or add classes.

August 23 (Tues) – Tuition and fees due by 3:30 pm.

September 5 (Mon) - Labor Day Holiday.

October 26 (Wed) - Last day to drop classes with a W or withdraw from all classes with a W.

October 31 (Mon) - Registration for Spring 2023 begins.

November 11 (Fri) - Registration for Spring ends.

November 21-25 (Mon-Fri) – Fall Break (Thanksgiving Holiday.) No classes.

December 2 (Fri) - Last day of classes

December 5-8 (Mon-Thurs.) - Final exam period.

December 9 (Fri) – Commencement.

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements: Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed-assignments: Exact exam dates will be announced, in class and via email, no later than one week before a scheduled exam.

Make-up exams are allowed at the discretion of the instructor. If the instructor determines there was a valid reason to miss class on the day of an assessment, then the missed exam must be made up by the set time limit provided by the instructor. The length of the time limit to take a missed assessment is also at the discretion of the instructor. Otherwise, all missed exams will count as zero. As a rule of thumb, have a verifiable excuse (e.g. doctor's note, event program) when requesting a make-up assessment.

Late Work Policy: Late homework will be assessed a late penalty of 30% on the first class meeting it is late, 60 % on the second class meeting it is late, and 90% on the third class meeting it is late. After the third class meeting in which the late homework is not submitted, the homework will be assigned a grade of zero for the student.

If you are involved in a University extracurricular activity that results in you missing class on the day of an exam and/or quiz, you MUST make arrangements before the date of the exam and/or quiz to take it before you leave for the event. Failure to do so will result in a zero on the assessment.

Students who miss class are responsible for learning the material presented on the day of their absence. They should obtain notes/copies of handouts/etc. from classmates who attended class that day.

Students who miss class are responsible for submitting homework as well as taking assessments by the scheduled dates of these assignments, regardless of the reason(s) for the students' absences.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before the last day of class.

The use of cell phones and/or other electronic devices (excluding permissible calculators) is NOT allowed. Students that violate this policy will be removed from class.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class

standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for |
|---------------|---|---------------------|
| | | the average student |
| Academic | Listening to lectures or participating in class activities: | 70 hours |
| Engagement | approximately 5 hrs per week | |
| | Taking tests: | 6 hours |
| | TOTAL: | 76 hrs |
| Preparation | Reviewing class notes: 1.6 hours per week | 24 hours |
| (outside of | | |
| class) | Homework: 10 hours per week | 150 hours |
| | TOTAL: | 174 hours |
| Overall Total | | |
| | | 250 hours |

Homework: Homework for this class will be completed out of class. Assignment details will be listed on Blackboard. Homework, in total, is worth 20% of your grade.

Class Assessments: There will be 5 in-class, closed book exams. Cumulatively, exams will be worth 60% of your grade. Additionally, the final exam will be in-class and closed book on its schedule date. It is worth 20% of your grade.

Grading: Each student's grade will be based on a percentage of the number of total possible points determined as follows:

5 Unit Tests 60% of grade Homework 20% of grade Final Exam 20% of grade

A = 90 - 100% B = 80 - 89%C = 70 - 79% D = 60 - 69% F = 0 - 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor

Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit, or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

This syllabus is a working document and all class dates and policies can be changed at any time without prior notice.

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES COURSE SYLLABUS, SPRING 2022

Instructor: Dr. H. Sayyar Office: Science Center A-19 e-mail: sayyar@uamont.edu

Office Hours: MWF: 8:00-9:00 am & 11:00-12:00 noon & pm appointment

TH: 8:30-9:30 am & pm appointment

Course: MATH 3513: DISCRETE MATH, three credit hours.

Course prerequisite: MATH 2255, CS 2213, or CS 2253.

Text and other materials: "ESSENTIALS of DISCRETE MATHEMATICS", Fourth Edition, by: DAVID J. HUNTER.

WebAssign:

After you've purchased your access code for WebAssign (either a physical card with an access code printed on it or online from www.webassign.net,) you must register for your College Algebra class on WebAssign using your access code and the following class key.

The class key for this course is: uamont 2709 7354

Go to www.webassign.net, click on "I have a key" and follow the directions given on the website.

Once you are enrolled, you will need to log-in, again. Please make note that your institution is **uamont** on the log-in screen.

Regularly log-in to Webassign to see the assignments and do them before the due dates.

Blackboard Supplemental Student Success Support: This course also has a Blackboard component to support your success. Regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description:

Develop and understand the foundations of logic, construction of algorithms, and methods of proofs Learn methods of counting and their applications to probability and other areas of mathematics. Discuss the fundamental principles of relations, graphs, and their applications to real world problems.

Learning Outcomes: By the end of this course, you should be familiar with the following concepts:

Logical Thinking: Formal Logic, Propositional Logic, Predicate Logic, Logic in Mathematics. Relational Thinking: Graphs, Sets, Functions, Relations and Equivalences, Graph Theory.

Recursive Thinking: Recursive Relations, Closed Forms and Induction, Recursive Definitions, Proof by Induction.

- 4. Quantitative Thinking: Basic Counting Techniques, Selections and Arrangements, Counting with Functions, Discrete Probability, Counting Operations in Algorithms.
- 5. Thinking Through Applications: Patters in DNA, Social Network, Discrete-Time Population Models.

Assessments: There will be three types of assessments:

Homework: All homework will be done on WebAssign. An honest and committed effort on homework will pay great dividends at test time. You should begin working on an assignment for a given section as soon as the section is covered. Note any exercises you have trouble with and bring them to class for discussion. If you have any difficulty, the time to address it is early so it does not grow into a bigger problem.

Tests: We will have four tests throughout the semester. The content and approximate date of each test is roughly indicated in the table below.

Final Exam: The final exam will be comprehensive.

Schedule: The following dates are <u>tentative</u> and will be revised as necessary.

| Chapter | Topic | Exam Dates |
|------------|---|----------------------------|
| 1 | Logical Thinking: 1.1-1.5 | Tuesday, February 8 |
| 2 | Relational Thinking: 2.1-2.4, 2.6 | Tuesday, March 1 |
| 3 | Recursive Thinking: 3.1-3.4 | Thursday, March 17 |
| 4 | Quantitative Thinking: 4.1-4.5 | Thursday, April 14 |
| 6 | Thinking Through Application: 6.1, 6.2, 6.3 | Thursday, April 28 |
| Final Exam | Comprehensive | Friday, May 6, 1:30 – 3:30 |

Special Dates of Concern:

January 12 (Wed) –First day of classes

January 14 (Fri) – Last day to register or add classes.

January 17 (Mon) – Martin Luther King Holiday

January 18 (Tues) – Tuition and fees due by 3:30 pm for all registered students.

March 21-25 (Mon-Fri) – Spring Break

March 30 (Wed)- Last day to drop a session. Grade(s) will be W

April 4 (Mon) - Registration for Summer and Fall begins.

April 15 (Fri) – Preregistration for Summer and Fall ends.

May 2 (Mon) - Last day of classes

May 4-May 9 (Wed-Mon) - Final Exams.

May 13 (Fri) – Commencement

UAM Attendance Policy:

Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.

Course Attendance Policy: If an absence is unexcused, the student may not make up any test or homework missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis, and are determined to be excused or unexcused at the sole discretion of the instructor.

If a student misses four consecutive class meetings without informing the instructor of a valid and documentable reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system. It is the student responsibility to make sure he/she will sign the attendance sheet, same signature each and every time. If a student leaves before the class is dismissed by the instructor, the student will be considered to be absent.

Special Policies:

A makeup test is allowed only for excused absences. In such cases proper arrangements must be made in advance to take the test early. Otherwise, the student must make up the test within three days of returning to class or receive a score of 0. If a test is missed, the final exam percentage score will replace the missed test score. If more than one test is missed, the final exam score will replace the first missed test score, and all subsequent missed tests will be assigned a score of zero. If no tests are missed, the final exam score, if higher, will replace the lowest test score.

cell phone, you will be asked to leave the classroom and 5 points will be deducted from your overall total score.

Students are not allowed to use cell phones, tablets, or computers as a calculator on an exam or quiz. Any violation of this policy will be treated as an incidence of cheating, and the student will receive a 0 for the exam.

A student may receive a grade of Incomplete only if he/she has a valid and well-documented reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 65% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Homework extensions will not be granted. It is the student's responsibility to have an updated computer with reliable internet connection that is compatible with WebAssign. All students must be enrolled in the instructor's WebAssign course to complete homework assignments. If you do not enrolled in Webassign part of the course, you will receive a grade of 0 for homework.

Grading: There is a maximum of 700 points to earn:

Homework: 100 Tests: 500 Final Exam: 100

Final grades are assigned according to the following scale:

Time grades are assigned according to the following scale

B: 80-89%

A: 90 – 100%

C: 70-79%

D: 60 – 69%

F: 0 - 59%

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|--------------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 39 hours |
| | Taking tests (1 hour for each of four tests) | 4 hours |
| | Taking the final exam | 2 hours |
| | TOTAL: | 45 hrs |
| Preparation (outside of class) | Reviewing class notes: 1 hour per week | 15 hours |
| | Homework: (on WebAssign) 6 hours per week) | 90 hours |
| | | |
| | TOTAL: | 105 hours |
| Overall Total | | 150 hours |

Note: For

any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance.

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from

8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

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The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654 Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit, or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES MATH 3533, DIFFERENTIAL EQUATIONS COURSE SYLLABUS Spring 2021

Instructor: Dr. Sayyar Office: Science Center, A-19 Phone: (870) 460-1366 e-mail: sayyar@uamont.edu

Office Hours: MWF: 11:00-12:00 am, TH: 8:30-9:00 am. MTWTF: 2:00-3:30. Also by appointment.

Course: MATH 3533, Differential Equations

Course prerequisite: A grade of C or better in Calculus II (Math 3495).

Text and other materials: A FIRST COURSE IN DIFFERENTIAL EQUATIONS With Modeling Applications, by: Dennis G. Zill.

Blackboard Supplemental Student Success Support: This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Text and other materials: A FIRST COURSE IN DIFFERENTIAL EQUATIONS *With Modeling Applications,* by: Dennis G. Zill. Also, **WebAssign**, an online homework system which comes with the e-book. **WebAssign** is a necessary component of the course and it is imperative that the student register in **WebAssign** immediately. To register for the course at <u>www.webassign.net</u>, you will need three "things":

A course code – the code for this course is: uamont 5568 7101

A working email you check regularly

A WebAssign access code – You may purchase an access code at the UAM bookstore (or similar venue) or at www.webassign.net. If you are waiting on financial aid, WebAssign will then give you a 10-day access to the course.

Blackboard Supplemental Student Success Support: This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: This course is a study of the following topics:

Introduction to Differential Equations
First-Order Differential Equations
Higher-Order Differential Equations
Modeling with First-Order Differential Equations
Higher Order Differential Equations
Modeling with Higher-Order Differential Equations
Series Solutions of Linear Differential Equations
The Laplace Transform

Learning Outcomes:

In this course we learn modeling of physical phenomena by differential equations. We will learn different analytic and qualitative techniques of solving and analyzing differential equations.

Course Assignments/Assessments:

| Sections | Topics | Test Dates | |
|-----------------------|--|-----------------------|----|
| 1.1 - 1.2 & 2.1 - 2.5 | Introduction, First Order Differential Equations | Wednesday, February 3 | 57 |

| 3.1 – 3.2 & 4.1 | Modeling With First-Order Differential Equations, Higher Order Differential Equations | Monday, Feb 22 |
|-----------------|---|-----------------------------|
| 4.2-4.7 | Higher Order Linear Equations | Monday, March 15 |
| 5.1-5.3 | Chapter 5: Modeling With Higher-Order Differential Equations | Friday, April 2 |
| 6.1-6.3 | Series Solutions of Linear Equations | Wednesday, April 14 |
| 7.1-7.2 | The Laplace Transform | Monday, April 26 |
| Final | Comprehensive (to replace a missed test or a low test score) | Thursday, April 29, 1:30 PM |

Special Dates of Concern:

January 13 (Wed) –First day of classes

January 15 (Fri) – Last day to register or add classes

January 18 (Mon) – Martin Luther King Holiday.

January 19 (Tues) – Tuition and fees due by 3:30 pm for all registered students.

February 12 (Fri) – Last day to drop with a W.

April 5 (Mon) – Registration for Summer and Fall begins.

April 16 (Fri) – Registration for Summer and Fall ends.

April 16 (Fri) – Deadline to apply for August and December graduation.

April 26 (Mon) – Last day of classes.

April 28- May 3 (Wed-Mon) – Final Exams

May 7 (Fri) – Commencement. Spring conferral of degrees

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed-assignments:

Exams cannot be made-up. If no tests are missed, your score on the final exam will replace your lowest test if the score on the final is higher. If one test is missed, then the grade on the final exam will be substituted for the test grade. If two or more tests are missed, a grade of zero will be given for the second and any subsequently missed tests.

Quizzes cannot be made up for any reason. The lowest two quizzes will be dropped.

If you miss the final exam, you will not be allowed a make-up. The final exam is on Wednesday, May 1 at 8:00 a.m.

Homework will not be accepted late and extensions will not be given. The lowest two homework assignments will be dropped. All homework assignments are available on the first day of class, so plan your semester accordingly.

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If you are involved in a University extracurricular activity that results in you missing class on the day of an exam, you MUST make arrangements before the date of the exam or quiz to take it before you leave for the event. Failure to do so will result in a zero on the exam or quiz.

Students who miss class are responsible for learning the material presented on the day of their absence. They should obtain notes/copies of handouts/etc. from classmates who attended class that day.

Students who miss class are responsible for submitting homework and projects as well as taking exams by the scheduled dates of these assignments, regardless of the reason(s) for the students' absences.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before the last day of class.

The use of cell phones, computers and/or other electronic devices is NOT allowed (excluding stand-alone calculators). Students that violate this policy will be removed from class.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Work Required:

| Activity | Assignment | Estimated hours for the average student | | |
|-------------------------|--|---|--|--|
| Academic Engagement | | | | |
| | Taking tests (1 hour for each of five tests) | 5 hours | | |
| | TOTAL: | 45 hours | | |
| Preparation (outside of | Reviewing class notes: 1 hour per week | 15 hours | | |
| class) | Homework: 5 hours per week | 75 hours | | |
| | TOTAL: | 90 hours | | |
| Overall Total | | 135 hours | | |

Explanation of Grading Policy:

Class Assessments: There will be six assessments for the course. They will all be given in-class.

Homework: Homework with due dates will be assigned, collected, graded, and returned to students.

Grading: Each student's grade will be based on a percentage of the number of total possible points determined as follows: 6 Unit Tests, 600 points + Homework, 100 points = 700 points

A = 90 - 100% B = 80 - 89% C = 70 - 79%

D = 60 - 69%

F = 0 - 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit, or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

UNIVERSITY OF ARKANSAS AT MONTICELLO

School of Mathematical and Natural Sciences

MATH 3545 (ACTS# Math 2603) Calculus III Course Syllabus

Spring 2022, MW 11:10 – 12:00, TH 11:10 – 12:30, SC A3

Instructor Name: V. Lynn Fox
Instructor Phone: 870-460-1416
Location of Office: Science Center, Room A-24
Instructor Email Address: fox@uamont.edu

Office Hours: MWF 9:00 – 10:00 a.m., MW 12:00 – 1:00 p.m.; TH 9:00 – 11:00 a.m., TH 12:30 – 1:00 p.m

Course Title and Credit Hours: MATH 3545 (ACTS# Math 3405), 5 credit hours

Prerequisites: A grade of at least a C in MATH 3495 (ACTS# Math 2505) Calculus II

Required textbooks, workbooks, supplementary materials:

1. Required: An opensource textbook: *Calculus Volume 3* available for download at https://openstax.org/details/books/calculus-volume-3

2. Required: A graphing calculator (such as the TI-84 line) A calculator equipped with a CAS system is not allowed on

For additional textbook information, you may go to the online bookstore: <u>UAM Bookstore</u>

Blackboard Supplemental Student Success Support: This course also has a Blackboard supplemental resource component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions

Course Description: The focus of this course is to develop the fundamentals of integral and differential equations calculus which include both the ability to perform manipulations and a conceptual understanding of the basic themes.

Student Learning Outcomes: By the conclusion of the course you should be able to

Graph surfaces in the 3D coordinate system and perform operations with vectors.

Write equations of lines, planes, and tangent planes

Graph and find the limits of functions of several variables

Perform the chain rule for derivatives for functions of several variables

Calculate level sets, directional derivatives, and gradient vectors

Perform Double and Triple Integration over Rectangles, General Regions, Polar Coordinates, and Spherical Coordinates.

Apply the method of Legrange Multipliers

Determine the velocities and accelerations of vector-valued position functions

Apply Stokes' Theorem, Gauss's Theorem, and Green's Theorem to integrate functions and fields

Evaluate Line and Surface Integrals

Course Assignments/Assessments: All exams are closed book and will be given on-campus.

| Unit | Topics | Sections in Text | Tentative Test Date | | |
|-------|---|-------------------|---------------------|--|--|
| 1 | Parametric Curves and Polars | 1.1 - 1.5 | T, January 25 | | |
| 2 | 3D Coordinate Systems | 2.1 - 2.7 | T, February 15 | | |
| 3 | Motion in Space | 3.1 - 3.4 | T, March 1 | | |
| 4 | Derivatives and Applications for Functions of Several Variables | 4.1 – 4.8 | T, April 5 | | |
| 5 | Integrals and Applications for Functions of Several Variables | 5.1 – 5.7 | Th, April 28 | | |
| 6 | Vector Calculus | 6.1 - 6.7 | | | |
| FINAL | EXAM: Comprehensive, Closed Boo | k Exam on Friday, | May 6 @ 1:00 p.m. | | |

Special Dates of Concern:

January 12 (Wed) –First day of class

January 14 (Fri) – Last day to register or add classes.

January 17 (Mon) – Martin Luther King Holiday. Offices and classes closed.

January 18 (Tues) - Tuition and fees due by 3:30 pm for all registered students. Students will be dropped at the end of the day unless payment or other payment arrangements have been made.

March 21-25 (Mon-Fri) – Spring Break

March 30 (Wed) – Last day to drop a session 1 class or withdraw from the term. Grade(s) will be W.

April 4 (Mon) – Preregistration for Summer and Fall begins.

April 15 (Fri) – Preregistration for Summer and Fall ends.

May 3 (Tues) – Study day (no classes)

May 6 (Fri) – Final Exam for Calculus III, 1:00 – 3:00 p.m.

May 13 (Fri) – Commencement

UAM Attendance Policy: Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.Regardless of the reasons for a student missing, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Course-specific Attendance Policy/Participation Requirements: Attendance will be taken for every class session. The following are special policies related to course-specific attendance, participation, and/or missed-assignments: Homework is due at 11:59 p.m. on its due date. Students are allowed 3 Late Passes which will allow them to access missed homework up to 72 hours after its due date. Once the 72 hours have passed or a student has used all 3 Late Passes, a missed homework assignment is closed to the student for grading.

A makeup exam is allowed only for excused absences. In every case of absence for UAM-sponsored activities and whenever possible for other excused absences, arrangements must be <u>made in advance</u> to take the test <u>early</u>. If arranges are not made in advance to take the exam early, the student will receive a zero for the exam. If a test is missed with no excuse, the student will receive a score of 0 for the test. The final exam score, if higher, will replace the lowest test score.

The use of cell phones, tablets and computers are permitted in class for academic purposes only. If communication or internet accessible devices are used for non-academic purposes in class, the use of communication or internet accessible devices in the class will be revoked.

The use of a cell phone or computer as a calculator on a quiz or exam is not permitted, and any instance thereof will be considered cheating and will result in a grade of 0 for that assignment.

A student may receive a grade of Incomplete only if he/she has a valid and well-documented reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 70% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for | 164 |
|----------|------------|---------------------|-----|
|----------|------------|---------------------|-----|

| | | the average student |
|-------------------------|--|---------------------|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 5 hrs per week | 70 hours |
| | Taking tests: | 6 hours |
| | TOTAL: | 76 hrs |
| Preparation (outside of | Reviewing class notes: 1.6 hours per week | 24 hours |
| class) | Homework: 10 hours per week | 150 hours |
| | TOTAL: | 174 hours |
| Overall | | |
| Total | | 250 hours |

Homework: Homework for this class will be completed online with assignments posted on Blackboard. The tentative due dates are posted on BlackBoard and will be confirmed in class before the due date. Homework will count for 20% of a student's final grade.

Class Assessments: There will be 4 - 5 exams and a cumulative final exam. Exams will be closed-book and taken in-class and the final exam will be taken on-campus Friday, May 6 @ 1:00 p.m.

Grading: Each student's grade will be based on a percentage of the number of points possible in a category (homework, exams, and final exam) and determined as follows:

Homework: 20%, Exams: 60%, Final Exam: 20%

$$A = 90 - 100\%$$
 $B = 80 - 89\%C = 70 - 79\%$ $D = 60 - 69\%$ $F = 0 - 59\%$

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance. **The use of a cell-phone on an exam is considered academic dishonesty.**

Technical Support Information:

Blackboard Assistance:

Contact Office of Instructional Technology; phone 870-460-1663; open Monday-Friday, 8 a.m. – 4:30 p.m.

Online Help Desk: Academic Computing

Email Assistance:

Contact the Office of Information Technology; phone 870-460-1036; open Monday-Friday, 8 a.m. – 4:30 p.m.

Library Services: The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

Academic Alert System:

The Academic Alert System is a retention program that puts students in contact with the appropriate campus resources to assist them in meeting their educational goals at UAM. Students who are academically struggling, have a high absenteeism, are exhibiting disruptive behavior or are having difficulty adjusting to campus life will be reported to the Office of Academic Affairs through the Academic Alert system.

THE CENTER FOR WRITING AND COMMUNICATION

The Center for Writing and Communication (CWC) is a free service to University of Arkansas at Monticello students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process.

Taylor Library, Room 203, (870) 460-1378 http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

UNIVERSITY TUTORING CENTER

Harris Hall, (870) 460-1454

All students have access to tutoring services on the 2nd floor of Harris Hall.

MATH TUTORIAL LAB

Math and Science Center, 870-460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

STUDENT HANDBOOK

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

UNIVERSITY BEHAVIOR INTERVENTION TEAM

The Behavior Intervention Team (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call 870-460-1454.

In case of emergency please call 911.

Students with Disabilities:

Any student requiring special accommodations should contact the Office of Special Student Services located in Harris Hall Room 124; phone 870 460-1226; TDD 870 460-1626; Fax 870 460-1926; email: whitingm@uamont.edu.

This syllabus is a working document and all class dates and policies can be changed at any time without prior notice.

UNIVERSITY OF ARKANSAS AT MONTICELLO

School of Mathematical and Natural Sciences

MATH 4711 Course Syllabus

Spring 2022, TBA, SC A3

Instructor Name: V. Lynn Fox Location of Office: Science Center, Room A-24 Instructor Phone: 870-460-1416 Instructor Email Address: fox@uamont.edu

Office Hours: MWF 9:00 – 10:00 a.m., MW 12:00 – 1:00 p.m.; TH 9:00 – 11:00 a.m., TH 12:30 – 1:00 p.m

Course Title and Credit Hours: MATH 4711, Mathematics Seminar, 1 credit hour

Prerequisites: Senior standing or permission of the instructor.

Required textbooks, workbooks, supplementary materials: None

Online bookstore: **UAM Bookstore**

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: Students give oral and written presentations based on laboratory and/or library research. This course may be repeated for a maximum of two credit hours.

Student Learning Outcomes:

By the conclusion of the course you should be able to:

- 1) To provide an overview of the mathematics the student has studied;
- 2) To improve the student's written and oral communication skills;
- 3) To acquaint the student with some of the basic library research techniques in mathematics;
- 4) To validate the student's mathematics background.

Course Assignments/Assessments:

The course requires that each student conduct library research on a specific mathematics topic. The instructor must approve the chosen topic. The student should search through the mathematics literature and gain detailed knowledge of the topic. The student is required to submit a word-processed report with references and to give a 30 minute oral presentation on the topic.

Special Dates of Concern:

January 12 (Wed) –First day of class

January 14 (Fri) – Last day to register or add classes.

January 17 (Mon) – Martin Luther King Holiday. Offices and classes closed.

January 18 (Tues) - Tuition and fees due by 3:30 pm for all registered students. Students will be dropped at the end of the day unless payment or other payment arrangements have been made.

March 21-25 (Mon-Fri) – Spring Break

March 30 (Wed) – Last day to drop a session 1 class or withdraw from the term. Grade(s) will be W.

April 4 (Mon) – Preregistration for Summer and Fall begins.

April 15 (Fri) – Preregistration for Summer and Fall ends.

May 3 (Tues) – Study day (no classes)

April 25 – 29 (Mon – Fri) – Last possible week to give oral presentation.

May 13 (Fri) – Commencement

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangement should be made prior to an absence whe for it is possible. Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless

they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements:

Students must arrange, with the instructor, one hour a week to visit with the instructor about the course and the student's presentation. This weekly time slot must be arranged by the end of the second week of class (Friday, January 21). Failure to meet weekly will result in a deduction of 2% on the student's final grade for each missed week.

PROCEDURE: Each student will find a faculty mentor who will assist the student in selecting a topic and researching the topic. Each student will meet with the course instructor at least once a week to review the student's progress. It is the responsibility of the student to find a mentor and to schedule meetings with the course instructor. The final research paper must be submitted at least one week prior to the presentation. Drafts of the presentation and report will be submitted throughout the semester. All presentations must occur before May 2, 2022.

PRESENTATION: The instructor will assign each student a date on which to make his/her oral presentation. The date and time of the presentation will be announced to the mathematics faculty. Other students and faculty will be invited to attend the presentation. All students enrolled in the course are required to attend all the student presentations. Failure to attend all the student presentations will result in a 10% deduction on a student's final grade. The final written report is due one week prior to the oral presentation. Cheating and plagiarism will result in a failing grade. To ensure objectivity all mathematics faculty present will grade the oral presentation. An average of the faculty evaluations of the oral presentation will constitute 50% of the total grade before any deductions for missing weekly meetings or student presentation.

You should plan to present your seminar topic as a poster and / or at the Oklahoma-Arkansas Regional Mathematical Association of America Meetings (MAA). The meeting takes place the first week of April (usually). If the conference is virtual, you will make virtual presentations for the meeting.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Work Required:

Academic Engagement: 15

Attend weekly meetings
Presentation
Attend all of student seminar presentations
Attend MAA conference in early April

Preparation: 30
Select a faculty mentor
Use library resources
Draft report and presentation
Overall Total Obligation: 45

Explanation of Grading Policy:

Oral Presentation - 50%
Drafts of Presentation (as set by instructor during weekly meetings)
Organization
Clarity of Presentation
Accuracy and Completion
Quality of Visual Aids
Ability to Answer Questions

Written Report - 50%
Drafts of Report (as set by instructor during weekly meetings)
Organization and Detail
Accuracy and Completion
References
Grammar

Pointwise Deductions on the Final Grade 2% for every missed weekly meeting, 10% for missing a student's presentation.

The seminar presentation should be organized along the following lines:

Seminar Organization

I. Introduction

II. Background

III. Significance

IV. Major Aspects or Applications

V. Summary

VI. Conclusions

Grade Assignment:

Grading Scale:

A = 90 - 100 B = 80 - 89 C = 70 - 79 D = 60 - 69 F = 59 and below

STUDENT SUPPORT SERVICES

Academic Alert System:

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Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/

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Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

Classroom Behavior/Disruption Policy

Students will not disturb normal classroom procedures and instruction. Disruptive conduct includes but is not limited to violent, noisy actions, profane or obscene language, intoxication, verbal abuse/slander, quarreling, fighting, threats to safety to oneself or others and failure to comply with the directions of a university official (reference UAM Student Handbook). A faculty member may, at his or her discretion, dismiss a disruptive student from the classroom for the balance of the class period and, at the faculty member's discretion, consider the missed class time as an unexcused absence.

University Policy on Concealed Weapons:

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit, or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

This syllabus is a working document, and all class dates and policies can be changed at any time without prior notice.

MATH 4711, Mathematics Seminar

Evaluation of Oral Presentation

| Evalu | ator | | | | | | | Stu | dent:_ | | | | | |
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| | I. | org | anizat | ion | | (circl | e a nun | nerical | grade | belov | v) | | | |
| | poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | best | | |
| | II. | cla | rity of | preser | ntation | 1 | (circ | le a nu | merica | al grad | le belo | ow) | | |
| | poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | best | | |
| | III. | acc | uracy | and co | mplet | ion | (circ | le a nu | merica | al grad | le belo | ow) | | |
| | poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | best | | |
| | IV. | qua | lity of | visua | l aids | | (circ | le a nu | merica | al grad | le belo | ow) | | |
| | poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | best | | |
| | V. | abi | lity to | answe | r ques | stions | | (cir | cle a n | umeri | cal gra | ade bel | ow) | |
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| | VI. | Ma | thema | tical C | Conten | t | | | | | | | | |
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SCHOOL OF MATHEMATICAL & NATURAL SCIENCES COURSE SYLLABUS

Complex Analysis (Math 479V) Spring 2022

Instructor: Dr. H. Sayyar Office: Science Center A-19 e-mail: sayyar@uamont.edu

Office Hours: MWF: 8:00-9:00 am & 11:00-12:00 noon & pm appointment

TH: 8:30-9:30 am & pm appointment

Course: Math 469V, Complex Analysis, 3 credit hours.

Course prerequisite: Grades of C or better in Calculus Series (Math 2254 - Math 2274.)

REQUIRED TEXT: There is no book assigned. The instructor will furnish students with notes on the topic covered

Blackboard Supplemental Student Success Support: This course also has a Blackboard course component used for announcements, supplemental resources, etc.

Course Description: This is an introductory course to Complex Analysis at an undergraduate level. Complex Analysis, in a nutshell, is the theory of differentiation and integration of functions with complex-valued argument z = x + iy, where $i = \sqrt{-1}$. While the course will try to include rigorous proofs for many, but not all, of the material covered, emphasize will be placed on applications and examples. Complex Analysis is a topic that is extremely useful in many applied topics such as numerical analysis, electrical engineering, physics, chaos theory, and much more. In addition, complex analysis is a subject that is, in a sense, very complete. The concept of complex differentiation is much more restrictive than that of real differentiation and as a result the corresponding theory of complex differentiable functions is a particularly nice one. The complex number system, analytic functions, the Cauchy integral theorem, series representation, residue theory, and conformal mapping are some of primary topics that will be covered.

Course Contents

Chapter 1: Complex Numbers and the Complex Plane

Chapter 2: Complex Functions and Mappings

Chapter 3: Analytic Functions Chapter 4: Elementary Functions

Chapter 5: Integration in the Complex Plane

Chapter 6: Series and Residues

Course Sequence and Schedule: The following dates are tentative and will be revised as necessary.

| Topic | Test |
|-----------|--------|
| Chapter 1 | Test 1 |
| Chapter2 | Test 2 |
| Chapter 3 | Test 3 |
| Chapter 4 | Test 4 |
| Chapter 5 | Test 5 |
| Chapter 6 | Test 6 |

Course Assignments/Assessments: There will be three types of assessments:

Homework: Homework problems will regularly be assigned, collected, and graded.

Tests: We will have 6-chapter tests throughout the semester, one test for each chapter 1-5 and one for chapters 6 & 7. A test will be given right after a chapter is covered. Each test consists of an in-class part (50%) and a take-home part (50 %.)

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Final Exam: A comprehensive final exam will be given upon the request of students who want to replace a low score on one

test.

Grading: There is a maximum of 700 points to earn:

Homework: 100 Tests: 600

Final grades are assigned according to the following scale:

A: 90 – 100%

B: 80 - 89%

C: 70 - 79%

D: 60 – 69%

F: 0 - 59%

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will a zero for the assignment on the first instance and a grade of an F for the class for the second instance

Special Dates of Concern:

January 12 (Wed) –First day of classes

January 14 (Fri) – Last day to register or add classes.

January 17 (Mon) – Martin Luther King Holiday

January 18 (Tues) – Tuition and fees due by 3:30 pm for all registered students.

March 21-25 (Mon-Fri) - Spring Break

March 30 (Wed)- Last day to drop a session. Grade(s) will be W

April 4 (Mon) - Registration for Summer and Fall begins.

April 15 (Fri) – Preregistration for Summer and Fall ends.

May 2 (Mon) - Last day of classes

May 4-May 9 (Wed-Mon) - Final Exams.

May 13 (Fri) – Commencement

UAM Attendance Policy:

Students are expected to attend all required class sessions during the semester. The University does not allow for unexcused absences. Each faculty member will determine his or her individual policies regarding excused absences, except in the case of a University sponsored event. Students involved in University sponsored events should be considered excused unless the proper notifications were not delivered to the instructor according to Policy XV on page 71 of the UAM Faculty Handbook.

Regardless of the reasons for a student missing, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw before or on October 27 receive a grade of W. Notre that withdrawing after October 27 will result a grade F.

Course Attendance Policy: If an absence is unexcused, the student may not make up any test or homework missed due to that absence. Absences due to UAM-sponsored activities are considered excused absences provided the instructor receives the proper notifications in a timely manner. All other absences are considered on a case by case basis, and are determined to be excused or unexcused at the sole discretion of the instructor.

If a student misses six consecutive class meetings without informing the instructor of a valid reason, he/she will be considered to have stopped attending class. A last date of attendance will be entered for the student in the WeevilNet system.

It is the student responsibility to make sure he/she will sign the attendance sheet, same signature each and every time. If a student leaves before the class is dismissed by the instructor, the student will be considered to be absent.

Special Policies:

A makeup test is allowed only for excused absences. In such cases proper arrangements must be <u>made in advance</u> to take the test <u>early</u>. Otherwise, the student must make up the test within three days of returning to class or receive a score of 01 Ma test is missed, the final exam score will replace the missed test score. If more than one test is missed, the final exam score will

replace the first missed test score, and all subsequent missed tests will be assigned a score of zero. If no tests are missed, the final exam score, if higher, will replace the lowest test score.

To prevent distractions to others, all cell phones must be turned off and put away in class. If you fail to turn off and put away your cell phone, you will be asked to leave the classroom.

A student is not allowed to use a cell phone, tablet, or a computer as a calculator on an exam or quiz. Any violation of this policy will be treated as an incidence of cheating, and the student will receive a 0 for the assignment.

A student may receive a grade of Incomplete only if he/she has a valid reason for not being able to complete the course during the semester and is passing the course at the time the disruption took place. In addition, the student must have completed at least 65% of the course. A request for an Incomplete will be considered only if submitted in writing with appropriate documentation before the last day of classes.

Homework extensions will not be granted. It is the student's responsibility to have an updated computer with reliable internet connection.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Average Time Requirements

| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 39 hours |
| | Taking tests (1.5 hour for each of four tests) | 6 hours |
| | TOTAL: | 45 hrs |
| Preparation (outside of | Reviewing class notes: 1 hour per week | 15 hours |
| class) | Homework: (on WebAssign) 6 hours per week) | 90 hours |
| | | |
| | TOTAL: | 105 hours |
| Overall Total | | 150 hours |

Note: For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the results a zero for the assignment or a grade of an F for the course.

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1063.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

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As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

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Library website for hours of operation: http://www.uamont.edu/pages/library/

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Location: Student Success Center, Room 201F

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Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

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Students with disabilities: It is the policy of the University of Arkansas at Monticello to accommodate individuals with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course. Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall Room 124; phone 870 460-1226; TDD 870 460-1626; Fax 870 460-1926; email: whitingm@uamont.edu.

UNIVERSITY OF ARKANSAS AT MONTICELLO SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES COURSE SYLLABUS

Fall, 2022 TTH 9:40 a.m.

Instructor Name: Dr. Carole Martin

Instructor Location of Office: Science Center A-29

Instructor Phone: 870-460-1464

Instructor Email Address: efird@uamont.edu

Office Hours: MWF 9 - 12, 1 - 2; TTH 9 - 9:30, 12:30 - 1:30.

Course Title and Credit Hours: MAED 2243: Geometric Concepts, 3 credit hours.

Prerequisites: MATH ACT 19 or greater (or equivalent from another placement exam) or MATH 183 with grade "C" or above and completion of MATH 1003 (ACTS 1003) or MATH 1103 (ACTS 1103) with a grade of C or above.

Required textbooks, workbooks, supplementary materials: A graphing calculator is required. Also, the required textbook is *Geometric Structures*, by Aichele, Douglas B. and Wolfe, John. ISBN 978-0-13-148392-7.

Online bookstore: UAM Bookstore

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: Topics in plane and solid geometry appropriate for elementary and middle school including measurement, construction, and the use of manipulatives and technology.

Student Learning Outcomes:

By the conclusion of the course you should be able to:

Know the fundamental concepts of one, two, and three-dimensional geometry.

Use various manipulatives appropriate for the teaching and learning of elementary geometry.

Course Assignments/Assessments: There will be four tests worth 100 points each, a comprehensive final exam (optional) worth 100 points, and at least four quizzes worth 5 points each.

Tentative Exam Schedule:

| Exam 1 | Chapters 1 & 2 | September 13 |
|------------|----------------|--------------------------|
| Exam 2 | Chapter 4 | October 4 |
| Exam 3 | Chapters 5 & 6 | October 27 |
| Exam 4 | Chapters 7 & 8 | November 29 |
| Final exam | Comprehensive | December 8, 8 am – 10 am |

Special Dates of Concern:

August 17 (Wednesday) First day of classes.

August 19 (Friday) Last day to register or add classes.

August 23 (Tuesday) Tuition and fees due by 3:30 pm for all registered students.

September 5 (Monday) Labor Day Holiday. Offices and classes closed.

October 26 (Wednesday)

Last day to drop with a W.

October 31 (Monday) Preregistration for Spring begins.

November 11 (Friday) Preregistration for Spring ends.

November 21-25 (Monday - Friday) Fall Break. Offices and classes closed.

December 2 (Friday) Last day of classes.

December 5-8 (Monday-Thursday) Final exam period.

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UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus.

Course-specific Attendance Policy/Participation Requirements: There are no make-up chapter exams. If you know that you are going to be absent the day that a chapter exam is scheduled, you may make arrangements to take it early. If no tests are missed, your score on the final exam will replace your lowest test score. If one test is missed, the grade on the final exam will be substituted for the test grade. If no tests are missed, the final exam is optional.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

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| Activity | Assignment | Estimated hours for the average student |
|-------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 39 hours |
| | Taking tests (1.5 hour for each of four tests) | 6 hours |
| | Taking the final exam | 2 hours |
| | TOTAL: | 47 hrs |
| Preparation (outside of | Reviewing class notes: 5 hours per week | 75 hours |
| class) | Studying for tests, quizzes, and final exam | 20 hours |

| | TOTAL: | 95 hours |
|---------------|--------|-----------|
| Overall Total | | 142 hours |

Grading Scale:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F=59 and below

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Location: UAM College of Technology at Crossett

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Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

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UNIVERSITY OF ARKANSAS AT MONTICELLO

SCHOOL OF MATHEMATICAL AND NATURAL SCIENCES

COURSE SYLLABUS Fall, 2022 TTH 11:10 a.m.

Instructor Name: Dr. Carole Martin

Instructor Location of Office: Science Center A-29

Instructor Phone: 870-460-1464

Instructor Email Address: efird@uamont.edu

Office Hours: MWF 9 - 12, 1 - 2; TTH 9 - 9:30, 12:30 - 1:30.

Course Title and Credit Hours: MAED 3553: Number Systems, 3 credit hours.

Prerequisites: MATH ACT 19 or greater (or equivalent from another placement exam) or MATH 183 with grade "C" or above and completion of MATH 1003 (ACTS 1003) or MATH 1103 (ACTS 1103) with a grade of C or above.

Required textbooks, workbooks, supplementary materials: A graphing calculator is required. Also, the required textbook is *Teaching Fractions and Ratios for Understanding*, 3rd edition, Lamon, Susan J. ISBN 978-0-415-88612-3 (pbk) or ISBN 978-0-203-80316-5 (ebk)

Online bookstore: UAM Bookstore

Blackboard Supplemental Student Success Support:

This course also has a Blackboard Supplemental Resource Component to support your success. Please regularly check the course component on Blackboard for announcements, supplemental resources, notes, class discussions, etc.

Course Description: Development of the real number system and basic concepts of probability and statistics.

Student Learning Outcomes:

By the conclusion of the course you should be able to:

Identify the components of the real number system.

Demonstrate a mastery of the basic arithmetical operations with the various subsets of the real number system.

Demonstrate a conceptual understanding of fractions, ratios, and proportions.

Course Assignments/Assessments: There will be four tests worth 100 points each. There will be 25 points from the Special Number Project and 50 points from a mini lesson.

The Special Number Project-due on September 13

Written report (approximately 2 pages) including: why you chose this special number, three numerical facts about your number, and three ways that your number is used in the world.

Oral reports to the class on the Special Number Project will be given on **September 15**. A 3-4 minute oral report is adequate. You are not required to use any visual aids or other ancillary materials but are invited to use them. Mini-lessons (Can be chosen from one of the Connected Mathematics Project modules). Students will plan and execute a standards-based lesson (approximately 10-15 minutes). The lessons will be presented on November 17 and November 29.

Tentative Exam Schedule:

| Exam 1 | Chapters 1 − 3 | September 13 |
|------------|------------------|-------------------------|
| Exam 2 | Chapters 4 – 6 | October 6 |
| Exam 3 | Chapters 7 – 9 | October 27 |
| Exam 4 | Chapters 10 & 11 | November 15 |
| Final exam | Comprehensive | December 7, 1 pm – 3 pm |

Special Dates of Concern:

August 10 (Wednesday)

August 19 (Friday) August 23 (Tuesday)

September 5 (Monday)

October 26 (Wednesday) October 31 (Monday)

November 11 (Friday)

First day of classes.

Last day to register or add classes.

Tuition and fees due by 3:30 pm for all registered students.

Labor Day Holiday. Offices and classes closed.

Last day to drop with a W.

Preregistration for Spring begins.

Preregistration for Spring ends.

183

November 21 – 25 (Monday – Friday) Fall Break. Classes closed.

December 2 (Friday)

December 5-8 (Monday-Thursday)

December 9 (Friday)

Last day of classes.

Final exam period.

Commencement

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence. Such arrangements should be made prior to an absence whenever it is possible.

Students absent from two consecutive or a total of three class meetings will be reported to Academic Alert unless they have notified the instructor of a justifiable reason for the absences and made plans to make up all materials covered. (Disclaimer: Faculty members may submit an Academic Alert report on any student identified as at risk at any time.) Faculty members may establish other specific attendance requirements, which will be stated in the course syllabus. Course-specific Attendance Policy/Participation Requirements: There are no make-up chapter exams. If you know that you are going to be absent the day that a chapter exam is scheduled, you may make arrangements to take it early. If no tests are missed, your score on the final exam will replace your lowest test score. If one test is missed, the grade on the final exam will be substituted for the test grade. If no tests are missed, the final exam is optional.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Work Required:

| Activity | Assignment | Estimated hours for the average student |
|--------------------------------|--|---|
| Academic Engagement | Listening to lectures or participating in class activities: approximately 1.5 hour class periods | 39 hours |
| | Taking tests (1.5 hour for each of four tests) | 6 hours |
| | Taking the final exam | 2 hours |
| | TOTAL: | 47 hrs |
| Preparation (outside of class) | Reviewing class notes: 5 hours per week | 75 hours |
| | Research on Special Number Project and planning of minilesson | 15 hours |
| | | |
| | TOTAL: | 90 hours |

Overall Total 137 hours

Grading Scale:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F=59 and below

TECHNICAL SUPPORT INFORMATION

Blackboard Assistance:

Contact the Office of Instructional Technology during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1663.

Help Link: http://www.uamont.edu/blackboard

Email Assistance:

Contact the Office of Information Technology (IT) during regular business hours, Monday-Friday from 8:00 a.m. to 4:30 p.m., at (870) 460-1036. The IT website also provides answers to frequently asked questions.

Website: http://www.uamont.edu/pages/resources/information-technology/it-for-students/

STUDENT SUPPORT SERVICES

Academic Alert System:

UAM is committed to your academic success. To help, UAM has developed an academic alert system to connect you with campus resources when needed. Faculty and staff members contribute directly to the academic alert system by submitting concerns about students who are exhibiting behaviors that will make it difficult for them to succeed. If an alert is submitted for you, you will receive an email or call from a professional academic advisor. Please respond to the contact you receive. If you have any questions about the academic alert system, you may call the Office of Academic Advising at (870) 460-1633.

Career Services:

Student Success Center, Suite 201, (870) 460-1454

Career Counseling is available to each student to assist and prepare for academic and career success, help make sound career decisions based on an evaluation of their goals, interests, abilities, and values, and to research possible career choices. Students can also research pre- and post-graduate career opportunities.

Counseling Services:

Student Success Center, Room 204D, (870) 460-1554

As a student you may experience a range of issues that can cause barriers to learning. Mental health concerns or stressful events may lead to diminished academic performance. Counseling services are available to assist you with addressing these and other concerns that you may be experiencing. You can learn more about confidential mental health services available on campus via the UAM Counseling Services website at http://www.uamont.edu/pages/student-affairs/counseling/

The Center for Writing and Communication:

Taylor Library, Room 203, (870) 460-1378

The Center for Writing and Communication (CWC) is a free service to UAM students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process. Website: http://www.uamont.edu/pages/school-of-arts-humanities/writing-center/

Library Services:

Library website for hours of operation: http://www.uamont.edu/pages/library/

Student Special Services:

Any student with a documented disability should contact the Office of Student Special Services.

Monticello Campus

Location: Student Success Center, Room 201F

Telephone: (870) 460-1226 / TDD: (870) 460-1626 Fax: (870) 460-1926

Mailing Address: P.O. Box 3600, Monticello, AR 71656

Email: whitingm@uamont.edu

McGehee Campus

Location: UAM College of Technology at McGehee Telephone: (870) 222-5360/Fax: (870) 222-1105 Mailing Address: P.O. Box 747, McGehee, AR 71654

Email: anderson-allen@uamont.edu

Crossett Campus

Location: UAM College of Technology at Crossett

Telephone: (870) 364-6414

Mailing Address: 1326 Highway 52 West, Crossett, AR 71635

Email: paschall@uamont.edu

Tutoring Center:

Student Success Center, Suite 203, (870) 460-1454

All students have access to free tutoring services. Drop-ins are welcomed or students can make an appointment. Tutoring Schedules are available to pick up. Night tutoring is available Monday-Thursday from 6:00 p.m. to 8:30 p.m.

Math Tutorial Lab:

Math and Science Center, (870) 460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

University Behavior Intervention Team:

The Behavior Intervention Team's (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call (870) 460-1110 or (870) 460-1554 during regular business hours.

In case of emergency or after office hours please call 911.

IMPORTANT POLICIES

Student Handbook:

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

Classroom Behavior/Disruptive Policy:

Students will not disturb normal classroom procedures and instruction. Disruptive conduct includes but is not limited to violent, noisy actions, profane or obscene language, intoxication, verbal abuse/slander, quarreling, fighting, threats to safety to oneself or others and failure to comply with the directions of a university official (reference UAM Student Handbook). A faculty member may, at his or her discretion, dismiss a disruptive student from the classroom for the balance of the class period and, at the faculty member's discretion, consider the missed class time as an unexcused absence.

Possession, discharge, or other use of any weapon is prohibited on the grounds or in the buildings of any campus, division, unit, or other area controlled by the University of Arkansas System, except that a handgun may be possessed by an individual who has a concealed handgun permit and has completed enhanced certification training in accordance with Ark. Code Ann. § 5-73-322(g).

UNIVERSITY OF ARKANSAS AT MONTICELLO

School of Mathematical and Natural Sciences Online MAED 3553: Number Systems Summer II 2021

Instructor Name: V. Lynn Fox, Ph.D. **Office:** Science Center, Room A24

Phone: 870 - 460 - 1416 (I am not in my office during Summer semesters; email is preferred method)

ail: fox@uamont.edu

Virtual Office Hours: M – TH 12:00 p.m. – 1:30 p.m.

Course Title and Credit Hours: MAED 3553: Number Systems, 3 credit hours.

Prerequisites: MATH 1043 with a grade of "C" or above.

Required textbooks, workbooks, supplementary materials: This course does not require a textbook. All materials will be provided on BlackBoard. Online bookstore: UAM Bookstore

Course Description: Development of real number system, operations in the number system, and applications involving real number operations.

Student Learning Outcomes:

The students will identify the components of the real number system.

The students will demonstrate a mastery of the basic arithmetical operations with the various subsets of the real number system.

The students will demonstrate a conceptual understanding of fractions, ratios, and proportions.

Course Assignments/Exams: The due dates for Content Lessons, Class Work assignments, Hands-On Activities and the syllabus quiz are arranged in order and with the timing of the material we will cover. The course assignments are online. Please see the end of the syllabus for a listing of assignment due dates.

Course Sequence/Schedule:

Week 1 – Place Value, Addition/Subtraction of Whole Numbers Week 2 – Operations with Whole Numbers

Week 3 – Number Theory, Prime/Composite, Greatest Common Factor, Least Common Multiple Week 4 –

Decimals, Fractions, Percent

Week 5 – Operations with Fractions

Generally, you will have two graded activities due each day through the week. There are a few exceptions to the assignment schedule. The activities are set up so that you will have a hands-on activities, content lessons through video and examples, and lectures on topics regarding teaching mathematics. DO NOT underestimate the importance of the videos. The videos provide material that is needed to complete assignments.

There is a Syllabus Quiz worth 10 points due on Wednesday, July 7.

There are 13 Content Lessons (Lesson Videos with Exercises) for the course and they are accessed through BlackBoard. The Content Lessons are comprised of several short videos regarding specific applications and a few questions over the material in the videos. These Content Lessons are intended to give instruction over the computational aspects of the course. Each completed Content Lesson is worth 35 points.

There are 7 Hands-On Activities for the course and they are accessed through Blackboard. The Hands-On Activities are comprised of videos discussing effective use of manipulatives with follow up questions about the video. Hands-On Activity is worth 40 points.

There are 13 Class Work assignments in the course. The Class Work assignments are comprised of lecture videos recorded by the instructor with follow-up questions. Each Class Work assignment is worth 35 points. I highly recommend you take notes while watching the lecture videos. The videos in our Class Work assignments are the lectures I would give if this were a face-to-face course. Most of the follow up questions will be essay/short answer questions. I prefer you submit your answers in Adobe pdf form. If you need help in converting your answer document to Adobe pdf, please visit Academic Computing webpage on the UAM website for instructions. Discussion Board Assignments and Grading: N/A Special Dates of Concern

July 6 (Tues) – Registration and first class day for session S2 and M2 classes.

July 7 (Wed) – Last day to register or add S2 classes. Tuition and fees due by 3:30 p.m. July 29 (Thurs) - Last day to drop sessions 1, M3, and S2 classes. Grade(s) will be W. August 4 (Wed) - Last day of classes. Final exams. August 5 (Thurs) - Grades due by 10:00 am

UAM Attendance Policy:

Regular class attendance is considered an essential part of the student's educational experience and a requirement for adequate evaluation of academic progress. The faculty considers that college students, as mature individuals, will recognize the need for regular attendance and will comply with this requirement.

UAM expects students to be diligent in the pursuit of their studies and regular in their class attendance. Students have the responsibility for making arrangements satisfactory to their instructors regarding all absences, whatever the reason, and are responsible for all materials covered during any absence.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Course-specific Attendance Policy/Participation Requirements: Your attendance is determined by completed assignments.

You are expected to complete assignments by their due date. Any missed assignment will count as an absence in the class.

Just logging onto the class or contacting IT or the instructor about technical issues (or similar lack of course work) is not class participation/attendance.

Class Policies Regarding Assignments:

There are **NO** extensions for Content Lessons (lesson videos with exercises). Make plans to submit Content Lessons BEFORE their due dates (or at least early in the day of their due date) to work around any technical or personal issues that may cause problems with submitting the assignment.

Hands-On Activates and Class Work assignments are expected to be turned in on-time on their scheduled due dates. If a student misses a scheduled due date, they can still turn in the assignment late with the understanding that there will be an automatic late penalty of 5 points per class day August 3, 2021.

No past-due assignment (i.e. Hands-On Activities and Class Work Assignments) will be accepted after 11:59 p.m. on Wednesday, August 3.

Students are responsible for submitting all graded assignments by the scheduled dates of these assignments, regardless of the reason(s) for the students' absences or missing the assignment due dates.

If a student cannot complete the course due to some extenuating circumstance such as a debilitating illness or accident, he/she may petition the instructor for a grade of "incomplete". To qualify for the incomplete grade, the student must have completed 70% of the course and have a passing grade at the time of the disruption. All petitions for incompletes are at the instructor's discretion and must be submitted in writing along with appropriate documentation before Monday, August 2.

Midterm Grade Policy:

Mid-semester grades are considered to be unofficial progress reports in that, while these grades do indicate the current class standing of the student, they are not permanently recorded on the student's official academic record. Instructors should notify students of their mid-semester grades.

Midterm grades and absences will be posted on WeevilNet in all sessions longer than six weeks (fall and spring regular session and eight- and six-week sessions). Midterm grades and absences will be posted no later than one week before the drop date in regular fall and spring semesters, and no later than three days before the drop date in eight- and six-week sessions. All students with a "D" or "F" will be reported to Academic Alert.

Regardless of the reasons for a student lack of participation, a faculty member may determine that the student cannot complete the course requirements or demonstrate the expected student learning outcomes within the timeframe of the course. The faculty member may recommend that the student withdraw, award the student a failing grade (at end of term) or, if warranted, assign the student an Incomplete.

Feedback Schedule:

Emails and requests for help will be answered within one business day of receiving them. Any email received after 5:00 p.m. on Thursday afternoon until 8:00 a.m. in the morning on Monday will be answered on the next available university calendar day. For course information questions, please consult Blackboard/Syllabus before sending me an email.

Method of Delivering Assignments:

All assignments will be available online through the UAM Blackboard course shell. Be sure to have anti-virus software installed on your computer and update it regularly. You will not receive an extension on the due date of an assignment. Make sure you configure your browser to allow third- party cookies and enable Flash.

Videos are embedded in online platforms. Youtube, Blackboard, and MyOpenMath are the online platforms that will host the videos for the class. Make sure you have the appropriate configuration to view the videos (mainly mp4 type videos) for the class. If find that you do not have the appropriate configuration, please contact Academic

Computing at 870-460-1663.

Some helpful links to get your browser ready for the course: How to enable Flash in your browser How to enable pop-ups for specific websites (WebAssign, BlackBoard, Desmos)

How to enable third-party cookies

Work Required:

| Activity | Assignment | Estimated hours for the average student |
|--------------------------------|---|---|
| | Listening to video lectures, reading text, working examples, or participating in class activities | 49 hours |
| | TOTAL: | 49 hours |
| Preparation (outside of class) | Reviewing notes | 11 hours |
| | Content Lessons, Completing Hands-On Activities | 90 hours |
| | TOTAL: | 101 hours |
| Overall Total | | 150 hours |

Explanation of Grading Policy:

| Number of Assignments | Assignment Type | Value per Assignment | Total for Assignment Type |
|--------------------------|------------------------|-------------------------|------------------------------|
| 13 | Content Lessons | 35 points each | 455 points |
| 7 | Hands-On Activities | 40 points each | 280 points |
| 13 | Class Work Assignments | 35 points each | 455 points |
| 1 | Syllabus Quiz | 10 points | 10 points |
| | | | |
| Total number of | 1200 points | | |

A = 90 - 100%B = 80 - 89% C = 70 - 79% D = 60 - 69% F = 0 - 59%Format of Assignments

Class Work Assignments Online (Through Blackboard) Hands-On Activities Online (Through Blackboard) Online (Through Blackboard) Content Lessons Syllabus Quiz Online (Through Blackboard)

Technical Support Information:

Blackboard Assistance:

Contact Office of Instructional Technology; phone 870-460-1663; open Monday-Friday, 8 a.m. – 4:30 p.m. Online Help Desk: http://www.uamont.edu/pages/resources/academic-computing/

Email Assistance:

Contact the Office of Information Technology; phone 870-460-1036; open Monday-Friday, 8 a.m. – 4:30 p.m. The

computer section in the Library is open during regular Library hours. Click here to see when the Taylor Library is open: http://www.uamont.edu/pages/library/

The Student Handbook for Distance Education is available at the following link: http://www.uamont.edu/pages/resources/academic-computing/

Minimum Technology Requirements:

For minimum technology requirements, visit: Academic Computing

Emergency or Interruption in Computer Service Policy:

Prepare for unexpected problems and emergencies. Understand that problems and glitches do occur in online learning as they do in any learning environment. Have a back-up plan such as using the computers at a local library or on-campus for submitting assignments in case your computer crashes or your service is interrupted. There will be not be any extended due-dates for assignments.

Library Services: The computer section in the Library is open during regular Library hours. Go to the Taylor Library website for hours of operation: http://www.uamont.edu/pages/library/ Academic Alert System:

The Academic Alert System is a retention program that puts students in contact with the appropriate campus resources to assist them in meeting their educational goals at UAM. Students who are academically struggling, have a high absenteeism, are exhibiting disruptive behavior or are having difficulty adjusting to campus life will be reported to the Office of Academic Affairs through the Academic Alert system.

THE CENTER FOR WRITING AND COMMUNICATION

The Center for Writing and Communication (CWC) is a free service to University of Arkansas at Monticello students and is designed to assist writers of any level or major, on assignments from all disciplines and genres, and at all stages of the writing process.

Taylor Library, Room 203, (870) 460-1378 http://www.uamont.edu/pages/school-of-arts- humanities/writing-center/

UNIVERSITY TUTORING CENTER Harris Hall, (870) 460-1454

All students have access to tutoring services on the 2nd floor of Harris Hall.

MATH TUTORIAL LAB

Math and Science Center, 870-460-1016

Free one-on-one tutoring is available for any mathematics class. Help with ALEKS, WebAssign, and MyMathLab is available. Math tutoring is located in the A-Wing of the Science Center.

STUDENT HANDBOOK

Each student is responsible for reading the student handbook including the rules and policies regarding conduct codes and academic dishonesty. The Student Handbook is located at the following link: http://uam-web2.uamont.edu/pdfs/student%20handbook.pdf

UNIVERSITY BEHAVIOR INTERVENTION TEAM

The Behavior Intervention Team (UBIT) purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students, faculty, and staff. If you or a classmate are in need of help, please submit a concern at

https://publicdocs.maxient.com/reportingform.php?UnivofArkansasMonticello&layout_id=10 or call 870-460-1454.

In case of emergency please call 911.

Students with Disabilities:

Any student requiring special accommodations should contact the Office of Special Student Services located in Harris Hall Room 124; phone 870 460-1226; TDD 870 460-1626; Fax 870 460-1926; email:

whitingm@uamont.edu.

This syllabus is a working document and all class dates and policies can be changed at any time without prior notice.

| Week | Assignment | Due Date |
|------|--|-----------------|
| | Review Syllabus Syllabus Quiz | W, July 7 |
| | | |
| 1 | Class Work Assignment 1 (Place Value) Content Lesson 1 | Th, July 8 |
| | (Place Value) | |
| | Hands-On Activity 1 (Place Value) | M, July 12 |
| | Class Work Assignment 2 (Add/Subtract Whole Numbers) | T. T. 1. 12 |
| | Content Lesson 2 (Add/Subtract Whole Numbers) Hands-On | 1, July 13 |
| | Activity 2 (Add/Subtract Whole Numbers) | W/ Index 1.4 |
| | Class Work Assignment 3 (Multiply Whole Numbers) Content Lesson 3 (Multiply Whole Numbers) | W, July 14 |
| 2 | Hands-On Activity 3 (Multiply Whole Numbers) Class Work | Th. July 15 |
| | Assignment 4 (Multiply Whole Numbers) | III, July 15 |
| | Content Lesson 4 (Multiply Whole Numbers) | M, July 19 |
| | Class Work Assignment 5 (Division of Whole Numbers) | 111, 5 41, 5 |
| | Content Lesson 5 (Division of Whole Numbers) Hands-On | T, July 20 |
| | Activity 4 (Division of Whole Numbers) | , , |
| | Class Work Assignment 6 (Number Theory) Content Lesson | W, July 21 |
| 3 | 6 (Number Theory) | - |
| 3 | Class Work Assignment 7 (Prime, GCF, LCM) Content | Th, July 22 |
| | Lesson 7 (Prime, GCF, LCM) | |
| | Class Work Assignment 8 (Decimals) Content Lesson 8 | M, July 26 |
| | (Decimals) | |
| | Hands-On Activity 5 (Decimals) | T, July 27 |
| | Class Work Assignment 9 (Intro to Fractions) | |
| | Hands-On Activity 6 (Intro to Fractions) Content Lesson 9 | W. I1 20 |
| 4 | (Intro to Fractions) Class Work Assignment 10 (Percent) | W, July 28 |
| | Content Lesson 10 (Percent) | Th, July 29 |
| | Class Work Assignment 11 (Add/Subtract Fractions) | 111, July 27 |
| | · · · · · · · · · · · · · · · · · · · | M, Aug 2 |
| | Assignment 12 (Multiply Fractions) | , 8 |
| | Hands-On Activity 7 (Fractions) Content Lesson 12 | T, Aug 3 |
| | (Multiply Fractions) | _ |
| 5 | Class Work Assignment 13 (Ratios and Proportions) Content | W, Aug 4 |
| | Lesson 13 (Ratios and Proportions) | |
| 1 | | |

Appendix E – Mathematics Faculty Vita

Vitas Included:

Ms. Laura Barton, Mathematics Instructor

Ms. Lura Cooper, Mathematics Instructor

Dr. Victoria Lynn Fox, Associate Professor of Mathematics, Assistant Dean

Dr. Jared Gavin, Associate Professor of Mathematics and Physics

Mr. Alan Goodding, Mathematics Instructor

Dr. Carole Martin, Associate Professor of Mathematics

Dr. Hassan Sayyar, Associate Professor of Mathematics

LAURA J. BARTON

Phone: (318) 614-4803 bartonl@uamont.edu

397 University Dr. Monticello, AR 71655

EDUCATION

MS Louisiana Tech University Master of Mathematics

November 2010

MAT University of Louisiana at Monroe

August 2006

Master of Arts of Teaching

Major: Secondary Education (7-12)

BS University of Louisiana at Monroe Bachelor of Science in Mathematics May 2003

HONORS AND AWARDS

Success Award by the chancellor of UAM

March 2018

The College Algebra Review Team was given the award for developing and facilitating a plan for teaching students who struggle with College Algebra.

TEACHING EXPERIENCE

University of Arkansas at Monticello, Monticello, AR

Aug 2013 - present

Instructor, Mathematics

- Currently teaching Math 1103 (Quantitative Literacy with Review), face to face and online
- Taught Math 143 (Introductory Algebra), Math 183 (Intermediate Algebra), Math 1043 (College Algebra)

Louisiana Delta Community College, Monroe, LA **Adjunct Faculty**

March 2012 – June 2013

• Taught Math 095(Workforce Math) and Math 099 (Introductory Algebra)

Louisiana Tech University @ Barksdale, Bossier, LA **Adjunct Faculty**

March 2013 – May 2013

• Taught Math 099 (Remedial Math)

Louisiana Tech University, Ruston, LA

March 2011 - Feb 2013

Adjunct Faculty

• Taught Math 099 (Remedial Math), Math 100 (College Algebra), Math 112 (Trigonometry), Math 125 (Finite Mathematics), and Math 241 (Calculus 1)

Louisiana Tech University, Ruston, LA Teaching Assistantship

Sept 2009 – Nov 2010

• Full responsibility for teaching Math 099 (Remedial Math), Math 125(Finite Mathematics), Math 101 (College Algebra)

Bastrop High School and Morehouse Magnet School, Bastrop, LA Teacher

2005 - 2008

• Taught Algebra I, Algebra I Honors (2005 – 2008), Algebra II (2008)

PUBLICATIONS

None

PROFESSIONAL TRAINING

Math Pathways Training

Dana Center, University of Texas, May 23-24, 2017

Math Pathways Training

Dana Center, University of Texas, February 23, 2018

SSTF Arkansas Data Coaching Workshop Part II

Dana Center, University of Texas, February 10 and 24, 2022

PROFESSIONAL AFFILIATIONS

Arkansas Council of Teachers of Mathematics (ACTM)

PROFESSIONAL SERVICE

Co-presenter at the Arkansas Curriculum Conference on November 6, 2014, in Little Rock Member of the Student Affairs Committee in 2014-2015 Judge for the science fair in 2015 Served on committee to improve the DEV 101 First Year Seminar class in 2016 Served on UAM's Strategic Planning Input Team for Enrollment Services in 2017

COMMUNITY SERVICE

ACTM Math Competition

Served as the Regional Director for the ACTM Math Competition at UAM from 2015 through 2022

Tutor

Tutored high school and college level students in various subjects

RECENTLY TAUGHT COURSES

| Term | Course number | Course name | Credit hours | Enrollment |
|----------------|---------------|--|--------------|------------|
| Spring 2022 | MATH 1103-01 | Quantitative Literacy w/Review | 3 | 28 |
| | MATH 102-01 | Quantitative Literacy w/Review Lab | 0 | 29 |
| | MATH 1103-03 | Quantitative Literacy w/Review | 3 | 25 |
| | MATH 102-03 | Quantitative Literacy w/Review Lab | 0 | 24 |
| | MATH 1103-90 | Quantitative Literacy w/Review Online | 3 | 34 |
| | MATH 102-90 | Quantitative Literacy w/Review Lab Online | 0 | 34 |
| Fall 2021 | MATH 1103-01 | Quantitative Literacy w/Review | 3 | 37 |
| | MATH 102-01 | Quantitative Literacy w/Review Lab | 0 | 37 |
| | MATH 1103-02 | Quantitative Literacy w/Review | 3 | 31 |
| | MATH 102-02 | Quantitative Literacy w/Review Lab | 0 | 31 |
| | MATH 1103-90 | Quantitative Literacy w/Review Online | 3 | 35 |
| | MATH 102-90 | Quantitative Literacy w/Review Lab Online | 0 | 35 |
| Summer 2021 | MATH 1103-90 | Quantitative Literacy w/Review Online | 3 | 15 |
| | MATH 102-90 | Quantitative Literacy w/Review Lab Online | 0 | 15 |
| Spring 2021 | MATH 1103-01 | Quantitative Literacy w/Review | 3 | 15 |
| | MATH 102-01 | Quantitative Literacy | 0 | 14 |

| | | /D : I 1 | | |
|-----------|--------------|-----------------------|---|----|
| | | w/Review Lab | | |
| | MATH 1103-03 | Quantitative Literacy | 3 | 14 |
| | | w/Review | | |
| | MATH 102-03 | Quantitative Literacy | 0 | 14 |
| | | w/Review Lab | | |
| | MATH 1103-90 | Quantitative Literacy | 3 | 28 |
| | | w/Review Online | | |
| | MATH 102-90 | Quantitative Literacy | 0 | 29 |
| | | w/Review Lab Online | | |
| Fall 2020 | MATH 1103-01 | Quantitative Literacy | 3 | 32 |
| | | w/Review | | |
| | MATH 102-01 | Quantitative Literacy | 0 | 32 |
| | | w/Review Lab | | |
| | MATH 1103-02 | Quantitative Literacy | 3 | 27 |
| | | w/Review | | |
| | MATH 102-02 | Quantitative Literacy | 0 | 27 |
| | | w/Review Lab | | |
| | MATH 1103-04 | Quantitative Literacy | 3 | 26 |
| | | w/Review | | |
| | MATH 102-04 | Quantitative Literacy | 0 | 26 |
| | | w/Review Lab | | |
| | MATH 1103-90 | Quantitative Literacy | 3 | 19 |
| | | w/Review | | |
| | MATH 102-90 | Quantitative Literacy | 0 | 19 |
| | | w/Review Lab | | |

LURA COOPER

Phone: (870) 460-1916 SandlinLE@uamont.edu 397 University Dr. Monticello, AR 71655

EDUCATION

MEd University of Arkansas at Monticello

Ma

y 2007 Master of Education

Emphasis on Secondary Mathematics

BS University of Arkansas Monticello

Ma

y 1998 Bachelor of Science in Mathematics Minored in Chemistry

Minored in Secondary Education

HONORS AND AWARDS

TEACHING EXPERIENCE

University of Arkansas at Monticello

2018- Present

Instructor, Mathematics

- Teaching load consisted of 15hours of instruction each week.
- Courses taught included: Introductory Algebra, Intermediate Algebra, College Algebra, and Calculus I
- Director of Developmental Coursework for the School of Mathematical and Natural Sciences

Dumas High School, Dumas, Arkansas Instructor of Mathematics

1998-2018

• Teaching load consisted of 6 classes each day Courses taught included: Algebra II, Algebra III, Geometry, AP Calculus

Dumas High School, Dumas, Arkansas Advanced Placement Lead Teacher

2009-2018

• Duties included leading vertical team meetings, observing mathematics teachers, presenting lessons for faculty,

Dumas High School, Dumas, Arkansas

2013-2016

Math/Science Instructional Facilitator

• Duties included overseeing alignment of math/science curriculum,

PUBLICATIONS

PROFESSIONAL TRAINING

SSTF Arkansas Data Coaching Workshop FOCI Series 6

Dana Center, University of Texas, September 13, 2022

SSTF Arkansas Data Coaching Workshop Part II

Dana Center, University of Texas, February 11, 2022

Higher Education Symposium on AP Precalculus

Participant November 2022

PROFESSIONAL AFFILIATIONS

Affiliated Science Fair Member

National Council of Teachers of Mathematics

Mathematical Association of America

PROFESSIONAL SERVICE

Sigma Zeta Sponsor

International Scientific Review Committee Chair (local science fair)

AP Calculus Consultant

AP Calculus Reader

COMMUNITY SERVICE

Kelso Rohwer Water Association

Member

St. Mary's Catholic Church

Member, Religious Instructor

Delta Area Community Foundation

Member

RECENTLY TAUGHT COURSES

| Term | Discipline & Course # | Sec# | Abbreviated Course Name | Credit | Contact | enrolled |
|--------|-----------------------|------|--------------------------|--------|---------|----------|
| | | | | Hrs | Hrs/ wk | |
| S 2022 | MATH 1003 | 02 | QUANTITATIVE LITERACY | 3 | 3 | 12 |
| S 2022 | MATH 1003 | 90 | QUANTITATIVE LITERACY | 3 | 3 | 22 |
| S 2022 | MATH 2343 | 01 | INTRO STATS | 3 | 3 | 9 |
| S 2022 | MATH 2255 | 01 | CALCUUS 1 | 5 | 5 | 5 |
| SII 22 | MAT 1203 | 301 | TECHNICAL MATH | 3 | 3 | 5 |
| SII 22 | MATH 1043 | 300 | COLLEGE ALGEBRA | 3 | 3 | 3 |
| F 2022 | MATH 1003 | 90 | QUANTITATIVE LITERACY | 3 | 3 | 23 |
| F 2022 | MATH 1043 | 01 | COLLEGE ALGEBRA | 3 | 3 | 14 |
| F 2022 | MATH 1043 | 08 | COLLEGE ALGEBA | 3 | 3 | 16 |
| F 2022 | MATH 2255 | 01 | CALCUUS 1 | 5 | 5 | 11 |

VICTORIA LYNN FOX

Phone: (870) 460-1416
fox@uamont.edu

397 University Dr.
Monticello, AR 71655

Education

PhD University of Arkansas at Little Rock,
Applied Science (Applied Math and Statistics)
Computational Mathematics

Discretation "Manufactorial Action Contains for Treatment

Dissertation: "Morphological Active Contours for Texture and Multiphase Segmentation"

MAT University of Arkansas at Monticello May 2002

BS University of Arkansas Monticello May 1998
Bachelor of Science in Mathematics

Honors and Awards

Faculty Research Grant Award 2017

\$1500 for fiscal year 2017 from UAM Faculty Research Grant Committee, "Intelligent Filtering of Noisy Audio Signals"

Nominee for Hornaday Outstanding Faculty Award

The Hornaday Outstanding Faculty Award is conferred annually at Spring Commencement to one faculty member who demonstrates excellence in the areas of teaching, research/scholarship, and service.

Faculty Research Grant Award

\$1500 for fiscal year 2016 from UAM Faculty Research Grant Committee, "Multiple Noise Filtering of Audio Signals via Fuzzy Logic."

Alpha Chi Rookie of the Year Nominee, UAM

Teaching Experience

University of Arkansas at Monticello Assistant Dean of Mathematics and Physics

- Teaching load consisted of 12 hours of instruction each week.
- Other duties include preparation of mathematics and physics class schedules and evaluation of mathematics and physics faculty.

University of Arkansas at Monticello Associate Professor, Mathematics

• Teaching load consists of 12-14 hours of instruction each week.

2020-Present

2016

2014

2017

2018-Present

• Courses taught over the past two years include: Calculus sequence, Linear Algebra, Introduction to Mathematical Reasoning, Introduction to Statistics, College Geometry, History of Mathematics, Quantitative Literacy and numerous independent studies and research courses.

University of Arkansas at Monticello

2014 - 2017

- **Assistant Professor**, Mathematics
 - Teaching load consists of 12-14 hours of instruction each week.
 - Courses taught over the past two years include: Calculus sequence, History of Mathematics, Quantitative Literacy and numerous independent studies and research courses.

University of Arkansas at Monticello

2010 - 2013

Instructor, Mathematics

- Teaching load consisted of 15-18 hours of instruction each week.
- Courses taught included: Introductory Algebra, Intermediate Algebra, College Algebra, Trigonometry, and Calculus I

Rison High School, Rison, Arkansas

1999-2009

Instructor, Mathematics

- Teaching load consisted of 7 classes each day
- Courses taught included: Algebra II, Algebra III, Trigonometry, AP Calculus AB and Geometry

Hamburg High School, Hamburg, Arkansas

1998-1999

Instructor, Mathematics

- Teaching load consisted of 6 classes each day
- Courses taught include Algebra II and Geometry

Publications

R. Jari, L. Mu, A. Harris, L. Fox "Superconvergence for discontinuous Galerkin finite element methods by L²-projection methods," *Computers & Mathematics with Applications*, vol. 65, no.4, pp.665-672, 2013. Finite Element Methods for Second Order Elliptic Interface

- V. L. Fox, M. Milanova, "Natural image segmentation using morphological mathematics and fuzzy logic," in *IEEE IRI 2013, Proceedings of the,* San Francisco, California, USA, pp. 724-729, 2013.
- V. L. Fox, M. Milanova, S. Al-Ali "A morphological multiphase active contour for vascular segmentation," *Journal on Bioinformatics and Bioscience*, vol. 3, no.3, pp. 1-12, 2013.
- V. L. Fox, M. Milanova, S. Al-Ali "A hybrid morphological active contour for natural images," *Journal of Computer Science, Engineering and Applications*, vol. 3, no. 4, 2013.
- V. L. Fox, M. Milanova, S. Al-Ali "Scene Analysis Using Morphological Mathematics and Fuzzy Logic," in *Computer Vision in Advanced Control Systems using Conventional and Intelligent Paradigms*, Springer-Verlag, Germany, 2014.

Al-Ali, Salim, Mariofanna Milanova, Agata Manolova, and Victoria L. Fox. "Chord-Distance Signature Derivatives and Histogram of Oriented Gradient Features for Human Action Recognition." *Mathematical Methods in Science and Mechanics, WEAS, Proceedings of the 16th International Conference on Mathematical Methods, Computational Techniques, and Intelligent Systems (MAMECTIS 2014)*, 2014.

Fox, Victoria L., and Mariofanna Milanova. "An Evolutionary Optimization Control System for Remote Sensing Image Processing." *New Approaches in Intelligent Image Analysis*. Springer International Publishing, 2016. 157-181.

Wynn, Allie and V. Lynn Fox (2017, April). *Identification of Noise-Color via a Infinite-Value Logic System.* Paper presented at Regional Meeting of the Mathematical Association of America, Arkansas-Oklahoma Chapter, Russellville, AR.

Wynn, Allie and V. Lynn Fox (2017, February). *Fuzzy Classification of Chirp Signals.* Poster presented at undergraduate STEM research Posters-at-the-Capitol sponsored by Council on Undergraduate Research, Little Rock, AR.

Wynn, Allie M, Fox V. Lynn, Dewitt, Rebekah (2018, April) "Identification of Noise Color on Compounded Audio Signals Via an Infinite-Valued Logic System and Neuro Network Learning," Paper presented at NCUR – National Conference of Undergraduate Research, Edmond, Oklahoma.

Wynn, Allie and V. Lynn Fox (2018, April). "Classification of Noise Color on Distorted Audio Signals via an Adaptive Neuro-Fuzzy Inference System" presented at MAA Regional Conference, Russellville, Arkansas.

Jumper, Hayden and V. Lynn Fox (2019, April) "Fingerprint Analysis of Fatty Acids Found in Algae", presented at MAA Regional Conference, Tahlequah, OK.

Massey, C., Gray, R., Baldwin, D., Fox V., and Longing, J. (2022) Undergraduate professional preparation and attitudes toward coaching related curriculum of Arkansas varsity high school head coaches. *Applied Research in Coaching and Athletics Annual.*

Massey, C., Gray, R., Baldwin, D., Fox V., Longing, J., and Salloukh, M. preprint (2023) Selected demographic characteristics and attitudes toward coaching certification of Arkansas varsity high school head coaches. *Applied Research in Coaching and Athletics Annual.*

Professional Training

November 2, 2017, 2017 Arkansas Conference on Teaching Mathematics.

April 6, 2018, Faculty-mentored Undergraduate Research: a Qualitative Examination of Its Influence on Student Engagement and Academic Achievement, NCUR, University of Central Oklahoma.

April 5, 2018, Bandwidth Recovery: Working with Low-Income and Non-Majority Students, NCUR, University of Central Oklahoma.

March 29, 2019, Faculty Workshop at MAA conference: *Developing a Culture of Mathematical Growth Mindset to Increase Students' Engagement, Perseverance, and Success.*

October 17, 2019, Exemplary Course Program Cohort, *Course Design for an Online Course* via Blackboard Learning Webinar 10:00 a.m. – 11:30 a.m.

October 24, 2019, Exemplary Course Program Cohort, *Interaction and Collaboration in an Online Course* via Blackboard Learning Webinar, 10:00 a.m. – 11:30 a.m.

October 31, 2019, Exemplary Course Program Cohort, *Effective Assessments in an Online Course* via Blackboard Learning Webinar, 10:00 a.m. – 11:30 a.m.

November 7, 2019, Exemplary Course Program Cohort, *Learner Support in an Online Course* via Blackboard Learning Webinar, 10:00 a.m. – 11:30 a.m.

November 14, 2019, Data Science Cohort, *Developing a Statewide Approach to Implementing Data Science Programs for Arkansas*, Part II of the Series "A Year in Data Science", UCA

Spring 2020: Webinar series provided by Blackboard Learning, *Webinar Training Series: Accelerate Your Transition to Remote Instruction*

October 15 & 16, 2020, Arkansas Virtual Leadership Academy, Mathematics Pathways

November 12, 2020, Arkansas, Dana Center Webinar on *Factors in Higher Education and Developing a Growth Mindset.*

Professional Affiliations

Mathematical Association of America (MAA) National Council of Teachers of Mathematics (NCTM)

Professional Service

Co-presented *Progression through Middle Grades: Expressions and Equations* during the summer (June 5 – 8, 12–15, September 16, September 30) to area middle school teachers. This workshop was sponsored by the UAM STEM center via a NCLB grant.

Committee membership of

Faculty Research Committee (2022)

UAM Program Review Committee (2015 – current)

Strategic Planning Committee (2020 - current)

Distance Learning Work Group (2017 – 2021)

University Judicial Board for Student Behavior (2015 – 2020)

Curriculum and Standards Committee (2016 – 2019)

Council on Assessment of Student Academic Achievement (as a substitute 2017)

Survey of Math Materials and Curriculum Revision Work Group (2017 - 2018)

General Education Work Group (2017-2018)

Development of Best Practices Committee (2017 - 2018)

Recently Taught Courses

| Term | Course number | Course name | Credit hours | Enrollment |
|-------------|---------------|-------------------------|--------------|------------|
| Fall 2021 | MATH 1003 | Quantitative Literacy | 3 | 37 |
| | MATH 2333 | Intro to Math Reasoning | 3 | 10 |
| | MATH 3495 | Calculus II | 5 | 6 |
| Summer 2021 | MAED 2243 | Fund Geom Concepts | 3 | 40 |

| | MAED 3553 | Number Systems | 3 | 32 |
|-------------|-----------|-----------------------|---|----|
| Spring 2021 | MATH 1003 | Quantitative Literacy | 3 | 28 |
| | MATH 479V | Independent Study | 3 | 1 |
| | MATH 3545 | Calculus III | 5 | 4 |
| | CS 3003 | Python Programming | 3 | 15 |

JARED MARTIN GAVIN

Phone: (870) 460-1364 397 University Dr. gavin@uamont.edu Monticello, AR 71655

Education

PhD Missouri S&T May 2009

Dissertation: "Triply Differential Measurements of Single and Multiple

Ionization of Argon by Electron and Positron Impact"

MS Missouri S&T May 2007

Master of Physics

BS University of Arkansas Monticello December 2003

Bachelor of Science in Mathematics

Teaching Experience

University of Arkansas at Monticello
Assistant Professor of Math and Physics

College of Technology – McGehee 2009 – 2012

Workforce Education Math Instructor

Missouri School of Science and Technology 2004 – 2008

Teaching & Research Assistant

Honors and Awards

ASGC Infrastructure Grant (\$9700) 2017

UAM Faculty Research Grant (\$500) 2017

Publications

J. Gavin, O. G. De Lucio, and R. D. DuBois, 2017. "Triply differential measurements of single ionization of argon by 1-keV positron and electron impact", Phys. Rev. A 95, 062703.

Differential Cross Section for Ionization of Argon by 1keV Positron and Electron Impact, J. Gavin, R. D. DuBois, O. G. de Lucio, presented at XXVIII IPEAC, Lanzhou, China July 2013.

Triply Differential Measurements of Single and Multiple Ionization of Argon by Electron and Positron Impact, J. Gavin, R. D. DuBois, O. G. de Lucio. Currently in preparation for submission to Phys Rev. A.

O. de Lucio, J. Gavin and R.D. DuBois, 2006. "Differential Electron Emission for Single and Multiple Ionization of Argon by 500 eV Positrons", Phys. Rev. Lett. 97, 243201.

R.D. DuBois, A.C.S. Santos, M.A. Thomason, J. Gavin, 2005. "Doubly and Triply Differential Ionization Studies

2012 - Present

using Positrons and Electrons." Nuclear Instr. and Meth B241 19-22.

- R.D. DuBois, O.G. de Lucio and J. Gavin, 2006. "Differential Ionization Studies for Positron Impact", Brazilian Journal of Physics, vol. 36, no. 2B, 522.
- O.G. de Lucio, R.D. DuBois and J. Gavin, 2007. "Differential Ionization of Ar by Positron and Electron Impact", Nuclear Inst. and Methods in Physics Research 261, 892-5.
- J. Gavin, M. Thomason and R.D. DuBois, 2005. "Coincidence Measurements of Scattered Projectiles, Ejected Electrons, and Recoil Ions for 1000 eV Electron Impact on Argon." Presented at DAMOP, Lincoln, NE, May.
- J. Gavin, M. Thomason and R.D. DuBois, 2005. "Triply Differential Ionization Studies for Electron Impact." Presented at XXIV ICPEAC, Rosario, Argentina, July 20-26.
- O. de Lucio, J. Gavin and Robert D. DuBois, 2006. "Single and multiple electron-impact ionization of Kr as a function of momentum transfer", presented at 37th Meeting of the Division of Atomic, Molecular and Optical Physics, May 16-20, Knoxville, TN.
- J. Gavin, O. de Lucio and R. DuBois, 2006. "Triply Differential Single Ionization of Argon by Positron and Electron Impact", presented at 37th Meeting of the Division of Atomic, Molecular and Optical Physics, May 16-20, Knoxville, TN.

Professional Training

| Radiation Safety Training Course through the University of New Mexico | 2016 |
|---|------|
| The Complete Oracle SQL Certification Course – Imtiaz Ahmad | 2020 |
| Complete Python Bootcamp From Zero to Hero – Jose Portilla | 2020 |

Professional Affiliations

American Association of Physics Teachers ISEF Science Fair Scientific Arkansas Academy of Sciences Mathematical Association of America

Professional Service

| Arkansas Academy of Sciences –Presented a poster and judged posters | 2014 |
|--|------|
| AOK AAPT Conference – Presented paper and poster. – Cellular Automata. | 2013 |
| Arkansas Academy of Sciences –Presented a poster. | 2013 |

Community Service

| UAM Vex Robotics Competition | 2013 - 2018 |
|-------------------------------|-------------|
| UAM Regional Science Fair | 2012 - 2019 |
| UAM Regional Math Competition | 2012 - 2019 |

Recently Taught Courses

| Term | Discipline & Course # | Se c# | Abbreviated Course Name | # Credit Hrs | # Contact Hrs/ wk | Number enrolled |
|-------|-----------------------|----------|-----------------------------|--------------------|-------------------------|--------------------|
| Spr | MATH 1003(2049) | 80 | Quantitative Literacy | 3 | 3 | 2 |
| Spr | MATH 1043-(1345) | 90 | COL ALGEBRA | 3 | 3 | 26 |
| Spr | PHYS 1003-(1325) | 90 | ELEMENTS OF PHYSIC | 3 | 3 | 20 |
| Spr | PHYS 1003-(2066) | 91 | ELEMENTS OF PHYSIC | 3 | 3 | 1 |
| Spr | PHYS 1021-(1326) | 01 | LAB ELEM PHYSICS | 1 | 2 | 8 |
| Spr | PHYS 1021-(2067) | 02 | LAB ELEM PHYSICS | 1 | 2 | 1 |
| SumII | MATH 1003-(1129) | 90 | Quantitative Literacy | 3 | 3 | 6 |
| SumII | MATH 1043-(1078) | 90 | COL ALGEBRA | 3 | 3 | 1 |
| Fall | MATH 102-(2028) | 03 | QUANTITATIVE LITERACY W/RE | 2 | 2 | 23 |
| Fall | MATH 1043-(1503) | 01 | COL ALGEBRA | 3 | 3 | 20 |
| Fall | MATH 1043-(1658) | 90 | COL ALGEBRA | 3 | 3 | 16 |
| Fall | MATH 1103-(2027) | 03 | Quantitative Literacy w/Rev | 3 | 3 | 23 |
| Fall | PHYS 1003-(1510) | 01 | ELEMENTS OF PHYSIC | 3 | 3 | 5 |

| Term | Discipline & Course # | Sec # | Abbreviated Course Name | Number Credit Hrs | Number Contact Hrs/ wk | Number enrolled |
|--------|-----------------------|----------|----------------------------|-------------------------|------------------------------|--------------------|
| Spr20 | Math183 | 85 | Intermediate Algebra | 3 | 3 | 16 |
| Spr20 | Math1043 | 90 | Col Algebra | 3 | 3 | 11 |
| Spr20 | Phys1003 | 90 | Elem of Physics | 3 | 3 | 17 |
| Spr20 | Phys1021 | 01 | Lab Elem Physics | 1 | 2 | 12 |
| Sum20 | Math143 | 90 | Intro Algebra | 3 | 3 | 2 |
| Sum20 | Math1043 | 90 | Col Algebra | 3 | 3 | 6 |
| Fall20 | Math1043 | 08 | Col Algebra | 3 | 3 | 11 |
| Fall20 | Math1043 | 01 | Col Algebra | 3 | 3 | 12 |
| Fall20 | Math1043 | 90 | Col Algebra | 3 | 3 | 31 |
| Fall20 | Phys1003 | 01 | Elem of Phys | 3 | 3 | 9 |
| Fall20 | Phys1021 | 01 | Lab Elem Phys | 1 | 2 | 5 |

ALAN B. GOODDING

Phone: (870) 460-1616 goodding@uamont.edu

397 University Dr. Monticello, AR 71655

Education

MAT University of Arkansas at Monticello Master of Art in Teaching May 2006

BS University of Arkansas Monticello Bachelor of Science in Mathematics

Minored in Natural Science (Biology)

May 2005

Teaching Experience

University of Arkansas at Monticello

2018-Present

Instructor, Mathematics

- Teaching load consists of 15 hours of instruction each week.
- Courses taught: Introductory Algebra, Intermediate Algebra, College Algebra, Technical Mathematics, Advanced Industrial Math, Developed quizzes, exams, homework, and rewrote teaching materials.

Drew Central School District, Monticello Arkansas

2017-2018

- Teaching load consisted of 5 and 8 classes each day
- Courses taught included: Algebra I and II, and Geometry

Monticello School District, Monticello Arkansas

2014-2017

Instructor, Mathematics

- Teaching load consisted of 4 block classes a semester.
- Courses taught included: Algebra I, Algebra II, and Geometry.

Drew Central School District, Monticello Arkansas

2004-2014

Instructor, Mathematics

- Teaching load consisted of 5 and 8 classes each day
- Courses taught included: Algebra I and II, and Geometry

Professional Training

Professional Affiliations

Mathematical Association of America (MAA)

National Council of Teachers of Mathematics (NCTM)

Professional Service

Co-taught in local elementary schools, helping struggling teachers. Assisted in local tutoring centers.

Community Service

Recently Taught Courses

| Term | Course number | Course name | Credit hours | Enrollment |
|---------------|---------------|----------------------|--------------|------------|
| Fall 2022 | MATH 143 | Introductory Algebra | 3 | 59 |
| | MATH 1033 | Intermediate Algebra | 3 | 37 |
| | | | | |
| Summer 2022 | MATH 143 | Introductory Algebra | 3 | 8 |
| | MATH 183 | Intermediate Algebra | 3 | 3 |
| Spring 2022 | MATH 1043 | College Algebra | 3 | 21 |
| - Sp8 = S = S | MATH 183 | Intermediate Algebra | 3 | 20 |
| | MATH 143 | Introductory Algebra | 3 | 29 |
| | | | | |
| Fall 2021 | MAT 1203 | Technical Math | 3 | 9 |
| | MATH 183 | Intermediate Algebra | 3 | 40 |
| | MATH 143 | Introductory Algebra | 3 | 40 |
| Summer 2021 | MATH 183 | Intermediate Algebra | 3 | 4 |
| | MATH 143 | Introductory Algebra | 3 | 8 |
| | | | | |
| Spring 2021 | MATH 1143 | College Algebra | 3 | 20 |
| | MATH 143 | Introductory Algebra | 3 | 26 |
| | MATH 183 | Intermediate Algebra | 3 | 16 |
| | MAT 1203 | Technical Math | 3 | 14 |
| | | | <u> </u> | |
| Fall 2020 | MATH 143 | Introductory Algebra | 3 | 39 |
| | MATH 183 | Intermediate Algebra | 3 | 43 |
| | MAT 1203 | Technical Math | 3 | 7 |

CAROLE MCGARR MARTIN

Phone: (870) 460-1464 397 University Dr. efird@uamont.edu Monticello, AR 71655

Education

EdD University of Arkansas at Little Rock December 2002

Dissertation: "The Effectiveness of Developmental Mathematics on Student Performance at an Open

Admissions University"

MEd University of Arkansas at Monticello December 1997

Master of Education

Emphasis on Secondary Mathematics

BS University of Arkansas Monticello May 1994

Bachelor of Science in Mathematics Minored in Secondary Education

Honors and Awards

Nominee for Rookie Teacher of the Year

1999

Awarded to a Teacher in their first three years of teaching.

Teaching Experience

University of Arkansas at Monticello

2009-Present

Associate Professor, Mathematics

- Teaching load consists of 12-14 hours of instruction each week.
- Courses taught over the past two years include: College Algebra with Review, Trigonometry, Number Systems, Developed quizzes, exams, and homework

University of Arkansas at Monticello

2006-2007

Assistant Dean of Mathematics and Physics

- Teaching load consisted of 9 hours of instruction each week.
- Other duties included: preparation of mathematics and physics class schedules and evaluation of mathematics and physics faculty.

University of Arkansas at Monticello

2005-2009

Assistant Professor, Mathematics

University of Arkansas at Monticello

1998-2005

Instructor, Mathematics

• Teaching load consisted of 15-18 hours of instruction each week.

- Courses taught included: Introductory Algebra, Intermediate Algebra, College Algebra, Trigonometry, and Calculus I
- Director of Developmental Coursework for the School of Mathematical and Natural Sciences

Hamburg High School, Hamburg, Arkansas

1994-1998

Associate Professor, Mathematics

- Teaching load consisted of 6 classes each day
- Courses taught included: Applied Mathematics I and II, Algebra II, Algebra III, and Geometry

Publications

Efird, Carole, "The Effects of Developmental Mathematics on Student Performance at an Open Admissions University," National Association of Developmental Education Digest, vol. 1, no. 2, 2005, pp. 19-25.

Professional Training

Examining the National and State Landscape for Quantitative Reasoning Skills for Health Care Professionals

Dana Center, University of Texas, September 24 and October 1, 2021

SSTF Arkansas Data Coaching Workshop Part II

Dana Center, University of Texas, February 11, 2022

Professional Affiliations

Mathematical Association of America (MAA)

National Council of Teachers of Mathematics (NCTM)

Professional Service

Co-taught a workshop, "Expressions and Equations," in June, 2017 to area high school teachers

Created and Taught the Pilot course MATH:1143 College Algebra with Review, 2015

Participated in an item review of the Algebra II End-of-Course Exam in August, 2007

Co-authored a grant for the No Child Left Behind Act of 2001, Title II, Part B Community Service

Monticello Junior Auxiliary

Life Member

First United Methodist Church, Monticello, AR

Member, Sunday school teacher, bible study leader

Recently Taught Courses

| Term | Course number | Course name | Credit hours | Enrollment |
|-------------|---------------|--------------------------|--------------|------------|
| Spring 2022 | MATH 1143 | College Algebra w/Review | 3 | 3 |
| | MATH 1033 | Trigonometry | 3 | 30 |
| Fall 2021 | MATH 1143 | College Algebra w/Review | 3 | 17 |
| | MATH 1033 | Trigonometry | 3 | 9 |
| | MAED 2243 | Fundamental Geometric | 3 | 4 |
| | | Concepts | | |
| | MAED 3553 | Number Systems | 3 | 4 |
| Spring 2021 | MATH 1143 | College Algebra w/Review | 3 | 4 |
| | MATH 1033 | Trigonometry | 3 | 9 |
| | MATH 3563 | Geometric Investigations | 3 | 2 |
| Fall 2020 | MATH 1143 | College Algebra w/Review | 3 | 26 |
| | MATH 1033 | Trigonometry | 3 | 9 |
| | MAED 2243 | Fundamental Geometric | 3 | 8 |
| | | Concepts | | |
| | MAED 3553 | Number Systems | 3 | 10 |

Curriculum Vitae Hassan Sayyar

Education

Ph.D. in Mathematics, Kansas State University, 1994.

M.A. in Mathematics, Mississippi State University, 1985.

M.S. in Physics, Mississippi State University, 1982.

B.S. in Physics, The University of Tehran, Tehran, Iran, 1977.

Professional Employment

Associate Professor (September 2002 - present), School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, Arkansas.

Assistant Professor (September 1996 - 2002), School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, Arkansas.

Lecturer (September 1994 - May 1996), Department of Mathematics, University of Wisconsin-Eau Claire, Eau-Clair, Wisconsin.

Teaching Assistant (September 1985 - May 1994), Department of Mathematics, Kansas State University, Manhattan, Kansas.

Teaching Assistant (September 1982 - May 1985), Department of Mathematics, Mississippi State University, Starkville, Mississippi.

Physics Lab Instructor (September 1979 - May 1982), Department of Physics, Mississippi State University, Starkville, Mississippi.

High School Teacher of mathematics and physics (1975 - 1978), Hashtroodi High School System, Tehran, Iran.

Teaching Experience

26 years (1996-2022) of teaching mathematics and physics (6years) at the University of Arkansas at Monticello at ranks of assistant and associate professor.

2 years (1994-1996) of teaching mathematics at the University of Wisconsin-Eau Claire, Eau-Clair, Wisconsin.

4 years (1990-1994) of teaching mathematics as a graduate teaching assistant at Kansas State University.

3 years (1978-1981) of teaching physics lab at Mississippi State University.

3 years (1982-1985) of teaching mathematics as a graduate teaching assistant at Mississippi State University.

3 years (1975-1978) of teaching physics at Hashtroodi High School, Tehran, Iran.

2years (1994-1996) Mathematics Laboratory, University of Wisconsin-Eau Claire.2 years (1991-1994) Mathematics Laboratory, Kansas State University

Courses Taught

Mathematics: Probability and Statistics (Graduate & Undergraduate),
Differential Equations, History of Mathematics, Complex Analysis, Matrix
Theory, Linear Algebra, Abstract Algebra, Number Theory, Discrete
Mathematics, Calculus Series, General Calculus for Business, Plane
Trigonometry, College Algebra, Quantitative Literacy, Intermediate Algebra
Physics: Modern Physics, University Physics I & II, General Physics I & II and
the corresponding Laboratories, Conceptual Physics and the corresponding
Laboratories.

Research Interests

Probability Theory and Harmonic Analysis, Statistics, Technology in Classroom

Ph.D. Dissertation

Brownian Motion and a Nagle and Stein Criterion.

Masters Thesis

The Effect of Temperature and Conductivity on Dielectric Under High Voltage Stress.

Professional Society

The Mathematical Association of America.

Sigma Zeta Beta Pi, The National Science and Mathematics Honor Society.

Honors

Nominated for the Alpha Chi Teacher of the Year Award, Arkansas Zeta Chapter of Alpha Chi, UAM, 1997.

Publications

Have authored a College Algebra textbook and have developed its corresponding computer (online) component for the use at the University of Arkansas at Monticello. Have prepared an accompanying notebook for the use with the trigonometry textbook at the University of Arkansas at Monticello.

Other Professional Activities

Director of the Southeast Arkansas Regional Science Fair (SEARSF) 2012-2021

A member of the Scientific Review Committee for Arkansas State Science Fair,

2012-2021

A board member of the Arkansas Science Fair Association. 2012-2021. Grader for the ACTM Regional Mathematics Contest, 2012-2019

Major Professional Self Improvement

Attended the Annual Joint Meetings of the Mathematical Association of America (MAA) and the American Mathematical Societies (AMS) as well as the Annual Meetings of the MAA, Oklahoma Arkansas Section (2002-2019.) Attended the Arkansas Co-Requisite Math Workshop, UACC, Morrilton, AR, 2019-2022.

Developed and taught mathematics courses in online format, 2019-present.

Special Training

Participated in the Arkansas Math Crusade, took the course "Higher Order Thinking in Mathematics", Spring Semester 1998.

External Grants

Received a total \$6,000.00 every year 2015-2021, from the Arkansas State Science Fair Association.

Generated between \$900.00-\$1,500.00 every year in participation fee for the Southeast Arkansas Regional Science Fair.

\$2,000 yearly UAM support for the SEARSF

\$700.00, every year since 20015, in the support of SEARSF from the

University of Arkansas, Agriculture Department, Soybean Science Challenge.

Academic Activities and Leadership

University of Arkansas at Monticello (UAM):

- Author, College Algebra Notebook used as the textbook for college algebra course offered at the University of Arkansas at Monticello.
- Director, The Southeast Arkansas Regional Science Fair, 2011-Present
- A member of The UAM Academic Appeals Committee, Fall 2008-Fall 2011.
- Coordinator of College Algebra during nine Academic years, as recently as 2013-2022
- A member of the Committee on Assessment of Students Academic Achievement (CASAA), 203-2006.
- A member of The UAM Curriculum and Standard Committee, Fall 1997-Spring 2002.
- The Representative of The School of Mathematical and Natural Sciences on The UAM Committee on Committees, 1997-1999.
- A member of Mathematics and Physics Search Committee.
- A member of Mathematics Awareness Committee, 1998-2001.
- Grader, Annual Regional Council of Teachers of Mathematics, UAM, 1997-Present.
- Judge, Annual South East Arkansas Regional Science Fair, 1997-2001
- Organizer & Judge, South East Arkansas Regional Physics Olympics, UAM, 1997-2001.
- Director, Mathematics Tutoring Lab, summer 1997.
- Administrator, CAAP, ACT tests, UAM, April, 1997.
- Advisor, ΦΛΧ Fraternity, UAM, 1997-1998

University of Wisconsin-Eau Claire:

- A member of The Math Meet Committee, Spring 1996, Dep. of Mathematics.
- A member of The Calculus Textbook Selection Committee, Fall 1995, Dep. of Mathematics.
- A member of The Complex Analysis Textbook Selection, Fall 1994, Dep. of Mathematics.

Scientific Meeting

The 74th Annual Meeting of the MAA, Oklahoma Arkansas Section, Harding University, Searcy, Arkansas, April 11-12, 2014

The 72nd annual Meeting of the MAA, Oklahoma Arkansas Section, Henderson State University, Arkadelphia, Arkansas, April 13-14, 2012

The Annual Joint Meetings of the American Mathematical Society (MAS) and the Mathematical Association of America (MAA), New Orleans, Louisiana, January 6-9, 2011

The Annual Joint Meetings of the American Mathematical Society (MAS) and the Mathematical Association of America (MAA), New Orleans, Louisiana, January 5-8, 2007

The Annual Joint Meetings of the American Mathematical Society (MAS) and the Mathematical Association of America (MAA), New Orleans, Louisiana, January 10-13, 2001

The Twelfth Annual International Teachers Teaching with Technology (T^3) Conference, Dallas, Texas, March 17-19, 2000

The Fourteenth Annual Statewide Mathematics and Service Leadership Conference, University of Central Arkansas, Conway, Arkansas, July 21-23, 1999

The Annual Joint Meetings of the AMS and the MAA, San Antonio, Texas, January 10-16, 1999

The 60th Annual Meeting of the MAA, Oklahoma Arkansas Section, University of Arkansas at Little Rock, Little Rock, Arkansas, April 1998

Core-Plus Mathematics Project (CPMP) Leadership Conference, San Diego, California, October 24-26, 1997

Arkansas Teachers Education Conference, Arkansas State University, Jonesboro, Arkansas, September 5-6, 1997

The 59th Annual Meeting of the MAA, Oklahoma Arkansas Section, University of Central Oklahoma, April 4-5, 1997

The Annual Meeting of the MAA, Wisconsin Section, University of Wisconsin-Green Bay, Green Bay, Wisconsin, April 7-8, 1995

Technology in the Upper-level Curriculum, St. Olaf, College, November 25-26, 1994

891st AMS, Kansas State University, Manhattan, Kansas, March 25-26, 1994

The Joint Meetings of the MAS and the MAA, Cincinnati, Ohio, January 1994

Conference on Probability and Harmonic Analysis, Kansas State University, Manhattan, Kansas, March 1992

Workshops & Minicourses

Minicourses: (During the Annual Joint Meetings of the AMS and the MAA)

"Teaching Contemporary Statistics with Active Learning", New Orleans, LA, January 10-13, 2001

"Teaching a Course in the History of Mathematics", San Antonio, TX, January 10-16, 1999

Workshops: (During the Twelfth Annual International T³Conference, March 17-19, 2000)

"Statistics by Discovery and Experimentation", Used the TI-83 to gather data, explore elementary statistics concepts, and formulate conjectures.

"Statistics Tests Using the TI-83", Investigated How to Incorporate the Test Functions in Doing A. P. Statistics

"Experimental Probability Simulation Using the TI-83", Simulated experiments such as approximating pi, estimating waiting time, and exploring the hat check problem.

"Sound, Beats and Beyond - Investigation of Sinusoidal Regression Curves", Used a TI-83 to analyze the harmonics of musical instruments.

"Modeling: From Difference to Differential Equations" Modeled discrete data with families of difference equations, then passed to models of underlying phenomena using instantaneous rate

Colloquium Talks & Presentations

"Some Interesting Problems from the History of Mathematics", The Fourteenth Annual Statewide Mathematics and Service Leadership Conference, July 21-23, 1999.

"Doing Statistics and Probability Using TI-89 and Quattro Pro", School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Fall 1999.

"Brownian Motion and Boundary Limits of Harmonic Functions", December 7, 1995, University of Wisconsin-Eau Claire.

"A Random Walk Representation of Brownian Motion", November 17, 1995, University of Wisconsin-Oshkosh.

"Martingales and Harmonic Functions", April 12, 1995, University of Wisconsin-Eau Claire.

"Brownian Motion and a Nagle and Stein Criterion", The Joint Meetings of the MAS and the MAA, Cincinnati, Ohio, January 1994.

Technology & Pedagogy

Technological instruments such as *TI-83* and *TI-89* calculators and various mathematical software such as *Maple*, *Derive*, *Quattro Pro*, *MS Excel*, and learning systems such as ALEKS, MathLab, and Webassign are incorporated in the pedagogy of teaching mathematics.

Participated in the Distant Learning Project launched by UAM in 1998 and taught "*On line*" courses (undergraduate and graduate) in Mathematics and Statistics, Fall 2001-Spring 2006.

Board Policy 210.2

Copyright and Distance Learning

I. Preamble

This policy addresses the use of Technology Enhanced Course Materials (TECM) to effectuate distance learning at the University of Arkansas. Distance learning for purposes of this policy is two- way communication between a teacher and student separated by a geographical distance using technology for the purpose of facilitating and supporting the education process. TECM are materials utilizing electronic transmissions to accomplish such an activity. The objective of this policy is to protect the copyright rights of both the faculty member and the University in TECM and to encourage the offering of quality distance learning programs.

It should be noted initially that, in most instances, the faculty member retains ownership of the copyright in TECM. At the same time, the University retains in all cases (with one exception) at least a non-exclusive license to reproduce and use TECM for educational purposes. The right to market and license TECM is addressed under the ownership and compensation provisions set forth in Section IV of this policy. TECM have been a part of the curriculum at the University of Arkansas but, for a variety of reasons, there are still many questions about the rights and responsibilities of the University and its faculty members with respect to these methods of instruction. Since the demand for distance learning appears to be increasing and the continuing development of TECM in various media seems likely, it is important to address the issues raised by the creation, use and distribution of various forms of TECM and clarify the rights and responsibilities of each of the parties involved.

This policy is a supplement to Board Policy 210.1, Patent and Copyright Policy, and only addresses copyright in the context of distance learning. To the extent this policy conflicts with Board Policy 210.1 on issues involving distance learning, this policy prevails.

II. Issues Raised

- Who owns the copyright in TECM and how should such rights be protected?
- What are the responsibilities of faculty members to utilize various technologies to meet the needs of their currently enrolled students?
- Under what circumstances should faculty members be expected to prepare TECM for use by students not currently enrolled in their classes?
- What are the rights of faculty members with regard to the continuing use of TECM?
- Who may receive Revenue from the sale or licensing of TECM?
- What procedures should be followed to limit liability for infringement of copyright or invasion of privacy or publicity if TECM contains material that belongs to someone other than the University or faculty creator(s) or contains the image or likeness of others.

III. General Guidelines

- A. Copyright Ownership. Board Policy 210.1recognizes that in most instances faculty members own the copyright in scholarly works created by the faculty members. Faculty members thus normally hold the copyright in TECM they create on their own initiative. Board Policy 210.1 also recognizes ownership of copyright in works of authorship created under contract or as works made for hire as residing with the University ("University Works"). TECM created jointly by faculty authors and by those whose contributions would be works made for hire will be jointly owned by the faculty author and the University. Any owner of copyright in TECM may secure copyright registration; joint owners may, but do not have to, agree to bear responsibility for enforcement of the copyright. Specific ownership rights are addressed in Section IV below.
- B. Faculty Responsibility to Currently Enrolled Students. Faculty members have a responsibility to meet the reasonable needs of their currently enrolled students, including those needs best addressed by the use of technologies to make class materials readily available. For example, if recordings may be needed by remote or handicapped students,

they should be created in the ordinary course of teaching and made available under reasonable circumstances. TECM such as tape recordings and videotapes created in the ordinary course of instruction and not intended for use beyond the end of the current semester or by students other than those registered for the class are the property and responsibility of the faculty member who creates or authorizes them. Faculty should be willing to utilize technologies appropriate to the circumstances to make their course materials reasonably available to their currently registered students. Faculty may dispose of such materials in whatever manner they choose at the end of each semester and in accordance with a campus or component records retention policy.

- C. Course Development. Faculty may receive release time for duties performed in the best interests of the University's instructional program, including the development of TECM. The grant of release time does not automatically determine the appropriate category to place the work. Normally, such a grant would imply at least a minimal allocation of University resources.
- D. Revision Rights. Faculty members should normally retain the right to update, edit or otherwise revise TECM that become out of date, or, in certain circumstances, should place a time limit upon the use of TECM that are particularly time sensitive, regardless of who owns copyright in the TECM. These rights and limitations may be negotiated in advance of the creation of the TECM and may be reduced to writing. Absent a written agreement, each faculty member will have the right and moral obligation to revise the TECM on an annual basis in order to

maintain academic standards. If the University believes a revision is necessary and no timely revision is made or if the revision is made and, in the University's opinion, it does not meet academic standards, the University may refuse to market the product or the University may employ another person to update the TECM

- E. Revenue. In accordance with Board Policy 210.1, faculty members shall receive all Revenue (as defined in Board Policy 210.1) that may accrue from the commercialization of TECM they create on their own initiative. On the other hand, the University retains the right to receive all Revenue from the commercialization of TECM created by faculty members pursuant to contract or as a work made for hire. However, the University may share such Revenue with the creators according to Section I.F of Board Policy 210.1 or on other terms as set by the University in its sole discretion. Copyright law permits joint owners to pursue commercialization either jointly or separately but with an accounting to the other joint owner for Revenue received. Other circumstances may require review on a case-by-case basis (such as the creation of TECM initiated by a faculty member but using University resources over and above those usually and customarily provided.) Absent a contract specifying to the contrary, specific division of Revenue is addressed in Section IV below. In instances of joint ownership between faculty members where the University also retains rights to Revenue, the faculty members shall determine by written document the division of Revenue. Absent a written document of division of Revenue, the faculty members shall divide their share pro rata based on participation.
- F. Contributed Materials. Liabilities may be incurred with respect to the inclusion of materials in TECM other than materials created by the author of the TECM and inclusion of voices or images of persons in the TECM, including audience members and guest lecturers. It is the policy of University that all faculty and staff comply with the law, including copyright and privacy laws; therefore, it is the responsibility of the creator of TECM (normally the faculty member) to obtain all permissions and releases necessary to avoid infringing copyright or invading the personal rights of others.
- G. Use of University's Name. Faculty members must observe the same requirements that apply in other contexts with respect to the use of the University's name.
- H. Protecting TECM. The University will determine whether to register the copyright and will be responsible for enforcement of TECM they own. Faculty members will make such decisions and take such steps to protect TECM they own. Any one of the authors of a joint work may register and enforce the copyright in the names of all owners, with accounting.
- I. University Resources Usually and Customarily Provided. When determining ownership and license rights in TECM, "university resources usually and customarily provided" includes such support as office space, library facilities, ordinary access to computers and networks or salary. In general, it does not include use of students or employees as support staff to develop the TECM, or substantial use of specialized or unique facilities and equipment, or other special subventions provided by the University

unless approved as an exception.

- J. Retention of Nonexclusive License. Except in category, I below, the University shall retain, at a minimum, a perpetual non-exclusive, royalty-free license to reproduce and use TECM in its internally administered programs of teaching, research and public service.
- K. Administration. The Campus Patent and Copyright Committee shall be responsible for the administration of this policy and applying the policy equitably across the campus. The faculty member should first meet with his/her department chair and dean to determine which category the TECM will be assigned and the ownership, institutional resource commitment and the Revenue. A copy of the agreement will be forwarded to the Patent and Copyright Committee for its review and assurance that the policy is being applied in an equitable manner. The chair of the committee shall inform the dean and department chair of any inequitable applications of the policy, and it shall be the responsibility of the dean and department chair to resolve the issue with the faculty member. If any dispute arises between the faculty member and department chair and dean, they shall initially attempt to resolve the disputed issue. Issues that cannot be resolved by the parties shall be handled in the same manner as in Section II.C.7 of Board Policy 210.1.

IV. Specific Categories Assigning Ownership and Compensation

Faculty members should meet with their Department Chair and Dean prior to creating TECM for distance learning in order to reach an agreement as to the appropriate category classification. It is understood that in some circumstances this category classification may change based upon a modification in University support for the project. Written contracts should be entered into between the University and the faculty member to resolve any issues of ownership and compensation. In addition, each campus or component has the discretion to vary by written contract the ownership of and compensation for any TECM despite the category classification of the TECM.

Category I – Totally Faculty or Staff Generated

Description of Individual and University Contribution:

The TECM resulted from an individual's efforts on his own personal time without any direct support from or through the University and without the use of any University resources beyond those usually and customarily provided.

Examples:

1. A faculty member in the School of Social and Behavioral Sciences at UAM works with a publishing company to create a Web-based course. The publishing company provides 700 hours of instructional design and production support and

the course is mounted on the company's server. All of the work is done on the faculty member's own time, but some of the development is done on weekends using the faculty member's office computer. Development software licensed by UAM that is available throughout the department is also used. The course is mounted on a commercial server.

A professor at one of the law schools is approached by the publishing arm of a learned society to create a CD containing 2,000 images of evidence that this professor has photographed in preparing for classes over the years. The professor took the photographs on weekends using own camera and film, but on the department's copy stand. The learned society creates and markets the CD.

Ownership and Compensation:

The individual owns the copyright and is entitled to receive all Revenue from the commercialization of the TECM.

Category II- Minimal University Resources

Description of Individual and University Contribution:

The work resulted from the individual's efforts with minimal resources above and beyond those normally provided.

Examples:

- 1. A faculty member at UAMS works with Digital Inc., a Web course publishing company, to put the course, Serving an Aging Population, totally on the Web. The University provides funds to purchase time from UAMS's Media Services to videotape two hours of lecture to be streamed as part of the course. In addition, the UAMS Library checks out to the faculty member one of two digital recording workstations for a period of two weeks. Digital Inc. spends over 300 hours recording materials provided by the faculty member and creating the Web course and mounts the course on their server. The faculty member works on the project almost exclusively on his/her own time.
- 2. An adjunct faculty member at UAPB who teaches Accounting Principles for Non- Profit Agencies for UAPB volunteers to put half of the course on the Web. UAPB provides 30 hours of training on WebCT, the Web platform utilized. UAPB also provides twenty hours of assistance in creating a Power Point Presentation to be used as part of the course. The adjunct faculty member spends 200 hours creating the course on their own time. The course is mounted on the University's server.

Ownership and Compensation:

The individual owns the copyright and has the right to distribute the TECM. The individual may receive the Revenue for any distribution outside the University course delivery. The University has a non-exclusive, royalty-free license to use the work as part of the University course delivery. The University may agree, in its sole discretion, to compensate the faculty member for its use of the TECM.

Category III- Substantial University Resources Are Provided

Description of Individual and University Contribution:

The work resulted from the individual's efforts with use of University resources above and beyond those usually and customarily provided.

Examples:

- 1. A faculty member at UA-Fayetteville volunteers to make her department's Literature for Children Course totally available on the Web. The faculty member is provided with release time in the Spring Semester and paid for a course in the Summer to develop the product, but also contribute some of her own time. The University provides a large grant to purchase a digital camera to use in the project or a .5 FTE Web developer housed in the department for a semester to work with the faculty member. Personnel from University Relations record speakers for the class, digitize audio and video, totaling over 300 clock hours of production and support services. The course is mounted on the University's server.
- 2 UALR's MBA Program decides to offer the degree by taping courses and allowing employees of two corporations to download the courses to view on their own schedules. Three faculty from the EMBA Program will rotate grading and answering questions for each course. A faculty member who teaches Human Resource Management volunteers to offer the first course. During the next year, this faculty member is given release time each semester and paid for two courses in the Summer. UALR funds production time in the Radio, Television and Film Department for the production of the tapes. Computing Services contributes significant hours in digitizing the tapes. The faculty member spends 60 hours over the year of their own time designing the course for television delivery. The University mounts the course on its server.

Ownership and Compensation:

The individual and the University may be joint owners of the copyright under Example 1 and therefore, absent an agreement, each has the right to distribute it and receive Revenue for any distribution outside the University course delivery. At the minimum, the University has a non-exclusive license to use the work as part of University course delivery and a non-exclusive commercial license to market the course outside the University, subject to an accounting of Revenue to the other joint owner.

Category IV- Work Made For Hire – University Assigns Duty to Faculty or Staff Member to Develop a Work

Description of Individual and University Contribution:

An employee of the University was contracted to develop a specific product. The University supplied all resources for the work. The work was conducted totally as a part of the faculty or staff member's assigned time. Example:

1. The Dean of the College of Education at UALR assigns a faculty member to a course that will be videotaped and broadcast the next year to sites in five school districts as part of a new Master's Program offered by the college. The faculty member is given release time for the Fall and Spring Semester and is paid a task payment. All of the design and production work is done during working hours. The faculty member is assigned a .5 FTE research assistant for the academic year. The Radio, Television and Film Department contributes 250 hours in the design and production of the videotapes.

Ownership and Compensation:

The University owns the copyright and has exclusive educational and commercial ownership and licensing rights. The faculty or staff member is not entitled to a share of the Revenue except as agreed upon by the University in its sole discretion.

Category V- Faculty Member Uses Own Work as Part of Course Offering at University Description of Individual and University Contribution:

The faculty member is using TECM that he/she created as part of his/her teaching duties at the University.

Examples:

- 1. See Category II, Example 1 above. In this case, the faculty member might offer the course at the University. The University would pay the previously negotiated fee to Digital, Inc. for access to the course materials, but this payment would not include compensation to the faculty member beyond the standard compensation for teaching the course.
- 2. See Category III, Example 2 above. In this case, the faculty member might teach the course to students in the program. There would be no compensation to the faculty member beyond the standard compensation for teaching the course.

Ownership and Compensation:

Ownership will be decided by categories one through four. There will normally be no extra compensation beyond normal teaching compensation for use of the TECM except as agreed upon by the University in its sole discretion.

Appendix G – Ten Year Graduate Initial Placement Information

| Graduate | Conferral Date | Major 1 | Major 2 | Minor | Initial Placement | |
|------------|----------------|-------------|-----------|--------------------------------|---|--|
| Student 1 | 12/19/12 | Mathematics | | Physics | Physics UCA Math Graduate Program | |
| Student 2 | 5/10/13 | Mathematics | | Physics | Physics UCA Math Graduate Program | |
| Student 3 | 12/18/2013 | Mathematics | | Physics Math Teacher in Texas | | |
| Student 4 | 5/9/2014 | Mathematics | Chemistry | | Business Owner | |
| Student 5 | 5/9/2014 | Mathematics | Chemistry | Math Teacher (UAM MAT), | | |
| Student 6 | 5/9/2014 | Mathematics | Chemistry | Physics | Engineer in defense industry, Camden, AR | |
| Student 7 | 12/18/2013 | Mathematics | | Coaching | Math Teacher (UAM MAT) | |
| Student 8 | 8/4/14 | Mathematics | | Chemistry Physics | UAF Mathematics Graduate Program | |
| Student 9 | 12/17/14 | Mathematics | | Natural Science | Math Teacher (UAM MAT) | |
| Student 10 | 8/4/14 | Mathematics | | CIS | Math Teacher (UAM MAT) | |
| Student 11 | 5/8/2015 | Mathematics | | Coaching | Math Teacher (UAM MAT) | |
| Student 12 | 5/6/2016 | Mathematics | | Teaching & Learning | Math Teacher (UAM MAT) | |
| Student 13 | 5/6/2016 | Mathematics | | Teaching & Learning | Math Teacher (UAM MAT) | |
| Student 14 | 8/4/2015 | Mathematics | | Physics | Business Owner | |
| Student 15 | 5/6/2016 | Mathematics | | Physics | Teaching | |
| Student 16 | 5/6/2016 | Mathematics | | Physics | Teaching | |
| Student 17 | 5/6/2016 | Mathematics | | Physics | UA PhD Program | |
| Student 18 | 12/16/2015 | Mathematics | | Physics | Data Integration Analyst | |
| Student 19 | 5/6/2016 | Biology | Chemistry | Mathematic | UA PhD Program | |
| Student 20 | 5/6/2016 | Mathematics | | Teaching & Learning | Math Teacher (UAM MAT) | |
| Student 21 | 5/18/2018 | Mathematics | | CIS | Math Teacher (Lisa Academy, Little Rock) | |
| Student 22 | 5/18/2018 | Mathematics | | Chemistry | UAMS College of Pharmacy | |
| Student 23 | 5/18/2018 | Mathematics | | Teaching & Learning, CIS | UA Math Graduate Program, post-graduate Instructor, Arkansas Tech | |
| Student 24 | 12/17/2018 | Mathematics | | Biology | Dentist | |
| Student 25 | 12/17/2018 | Mathematics | | CIS | Math Teacher (out of state) | |
| Student 26 | 5/19/2019 | Mathematics | | Teaching & Learning | UCA Math Graduate Program. post-grad: Math Teacher (UAM MAT) | |
| Student 27 | 5/19/2019 | Mathematics | | CIS | Math Graduate Program | |
| Student 28 | 5/20/2020 | Mathematics | | Not Required | Teaching (out of state) | |
| Student 29 | 12/19/2020 | Mathematics | | Not Required | Data Analyst | |
| Student 30 | 12/19/2020 | Mathematics | CIS | Not Required | Math Teacher (UCA MAT) | |

| Graduate | Conferral Date | Major 1 | Major 2 | Minor | Initial Placement |
|------------|----------------|-------------------------------|---------|------------------------|---|
| Student 31 | 5/7/2021 | Mathematics | | Teaching & Learning | Math Teacher (UAM MAT) Fall 2021, postgrad: Accepted Vanderbilt Grad Program for Spring 2023 |
| Student 32 | 5/7/2921 | Mathematics | | Business | Financial Analyst |
| Student 33 | 5/7/2021 | Mathematics | CIS | Not Required | Data Analyst |
| Student 34 | 8/10/2021 | Mathematics – Data Science | | Not Required | Project Manager |
| Student 35 | 5/13/2022 | Mathematics – Data Science | | Not Required | Minor League Baseball |
| Student 36 | 5/13/2022 | Mathematics – Data Science | | Not Required | IT Analyst |
| Student 37 | 8/10/2022 | Mathematics | _ | Not Required | Math Teacher (UAM MAT) |

Appendix H – Classroom Visit Evaluation Form

School of Mathematical & Natural Sciences Classroom Observation Form

| Instructor's Name: | Course: |
|----------------------------------|---|
| Date & Time: | Evaluator: |
| Approximate numbe | er of students in class: |
| Format of course: | (E.g., Lecture, laboratory, lecture/discussion, seminar) |
| Lecture | |
| Preparation & Org Does the inst | anization: ructor appear to be prepared for the course? Yes |
| Comments: | |
| | |
| Is the present | tation at a level appropriate for the course? Yes |
| Comments: N | None |
| Are the object | ctives for this meeting of the class clear? Yes |
| Comments: | |
| Is the present | tation organized? Yes |
| Comments: N | Vone |
| Does the inst | ructor appear to be interested in the subject? Yes |
| Comments: N | None |
| Does the inst | ructor appear to be interested in the student? Yes |
| Comments: | 234 |

| Does the instructor encourage student involvement in class? Yes. |
|--|
| Comments: |
| Does the instructor appear to have a good rapport with the students? Yes |
| Comments: |
| Mechanics: |
| Can the students read material in the manner in which it is presented? Yes |
| Comments: |
| Is the instructor's voice understandable to students - both clear and sufficiently loud? Yes |
| Comments: |
| Does the instructor maintain eye contact with students? Yes |
| Comments: |
| Does the instructor use technology in an appropriate manner? Yes |
| Comments: |
| Other comments: |

Othe

Include any additional comments relevant to this class. Be as specific as possible. Use NA if the item does not apply to this class.

Appendix I – Course Placement for Remedial or General Studies Mathematics

| Norm-Referenced Test Scores | | | | | | | |
|-----------------------------|------------------------|-------------------|------------------|-------|--------------------------------|--------------------------------------|--|
| ACCP_N XTGEN | ACCUPLACER SAT ACT | | Course Placement | | | | |
| Elem. Algebra | College- Level Math | Elem. Algebra | Math | Math | | | |
| 1-246 | N/A | 1-56 | Up to 400 | 1-15 | Math 143 | | |
| 246-257 | N/A | 57-81 | 430-500 | 16-18 | Non- STEM Majors STEM | MATH 1103 & MATH 102 | |
| | | | | | Majors | MATH 183 | |
| 257 – 269 | 42-85 | 82-108 | 510-530 | 19-21 | Non- STEM Majors | MATH 1103 & MATH 102 OR MATH 1003 | |
| | | | | | STEM Majors | MATH 1143 | |
| 270 or | 86 or above | 109 or | 540 or | 22 or | Non- STEM Majors | MATH 1103 & MATH 102 OR MATH 1003 | |
| above | | above above above | | above | STEM Majors | MATH 1143 or MATH 1043 | |

<u>List of Courses for Remedial or General Education Mathematics:</u>

| MATH 143 | Introductory Algebra | (Remedial) |
|---------------------------|--|--------------------------------------|
| MATH 183 | Intermediate Algebra | (Remedial) |
| MATH 1103 and MATH 102 | Quantitative Literacy with Review and QL with Review Lab | (Co-requisite for General Education) |
| MATH 1143 | College Algebra with Review | (Co-requisite for General Education) |
| MATH 1003 | Quantitative Literacy | (General Education) |
| MATH 1043 | College Algebra | (General Education) |

Appendix J – UAM Faculty Distance Education Handbook

UNIVERSITY OF ARKANSAS AT MONTICELLO Monticello, Arkansas

FACULTY GUIDELINES FOR ONLINE EDUCATION

Revised January 2022

Introduction

The University of Arkansas at Monticello is committed to offering quality online classes to accommodate its students' interests, lifestyles, and academic needs. These faculty guidelines (a supplement to the UAM Faculty Handbook) address policies and procedures that enable faculty and students to benefit from the opportunities afforded by distance education. These guidelines also provide information faculty will need in order to develop and teach effective, interactive online courses.

Class Rosters and Attendance Verification

The instructor should check the most recent enrollment roster prior to the start of each class. A student must be listed on the roster to be able to participate in the class. A student whose name is not on the roster and who attempts to participate in the class should be immediately referred to the Registrar to resolve the problem. Students are automatically added and dropped from Blackboard in synchronization with WeevilNet daily at 9:00 a.m., 1:00 p.m., and 5:00 p.m.

Each instructor should maintain attendance records via participation in online activities and submission of assignments. Criteria for initial attendance may include an orientation quiz, posting a student biography, participating in a first-week discussion, or some other assignment that enables the instructor to verify the student's attendance and intention to continue in the course. Each instructor will be asked to verify enrollment via the Enrollment Verification Form distributed by the Registrar. Any student who has not participated in the class should be noted on the form. A student who merely logs into the class cannot be counted as attending. The student must participate.

Class Size

Class size for a distance education course is determined by the academic dean in consultation with the faculty member. Of particular consideration is how students' academic experience will be affected by class size.

Copyright and Fair Use

Under Section 107 of the copyright law (https://www.copyright.gov/) 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.

The following site provides illustrations of the amounts of copyrighted work that may be used under the Fair Use Doctrine: https://www.copyright.gov/fair-use/more-info.html

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. Faculty should visit the American Library Association website for more information:

http://www.ala.org/advocacy/copyright/teachact/distanceeducation

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 (<u>www.copyright.com</u>) 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

https://fairuse.stanford.edu/overview/introduction/getting-permission/)

The US Copyright Office (https://www.copyright.gov/) allows one to search a database for copyright ownership.

Does a faculty member need a copyright for his/her original materials?

The Library of Congress (https://www.copyright.gov/) provides information regarding registering a work for copyright. Posting a copyright notice on a work, whether or not it is registered, may deter academic and intellectual piracy.

Course Management

Each instructor of an online course must maintain adequate electronic records of course materials including but not limited to:

- Reporting midterm and final grades and "last date of attendance" as required;
- Making sure that each student is encouraged to complete course evaluations;
- Remembering that a student can take the course from anywhere in the world; and therefore, assignment and test deadlines need to be specific and explicit in regard to time zone.

Course Ownership

The University of Arkansas at Monticello follows the University of Arkansas Board of Trustees Policy 210.1 regarding course ownership. The link below provides more details. (Board Policy-Patent and Copyright)

Faculty Office Hours

To facilitate student counseling and advising, full-time UAM faculty members must host at least ten office hours per week with time in the mornings and afternoons each day. The faculty member should be aware that some online students will still want to meet with their instructor face to face; in other words, virtual office hours do not substitute for on-campus office hours for full-time UAM faculty. For online classes, office hours can als@40nsist of phone calls, Zoom calls, and online chats.

Normally, the faculty member will respond to emails within the timeframe of the designated office hour. Faculty with responsibilities for laboratories, clinical and intern supervision, and/or research duties, or internship duties should consult with the unit head to design a plan to meet requirements for the number and distribution of office hours. The unit head must approve all arrangements. A schedule of office hours must be posted in Blackboard, on the faculty member's office door, listed in the course syllabus, and filed in the supervisor's office and in the Office of Academic Affairs.

Faculty Workload

Any distance education course may be part of a teaching faculty member's standard workload. The faculty member's teaching in an online course should be evaluated as part of Annual Faculty Evaluation and in the context of promotion and tenure considerations.

Expectations

Blackboard Construction and Maintenance Skills include:

- Mastering the courseware functions (e-mail, bulletin board, chat, dropbox, calendar, course content, and testing, etc.)
- Mastering courseware functions to manage instructional outcomes (test construction, grading, monitoring student performance, etc.).

It is highly recommended that first-time instructors complete UAM's online course in "Blackboard best practices" and that seasoned faculty review "Blackboard best practices" on an ongoing basis.

Frequent communication with students and timely responses to students' assignments and questions are critical.

Instructional Practices and Policies

An instructor is obligated to develop and to teach each distance education course with the same level of expectation as an on-campus course. Each instructor must prepare a course syllabus using the syllabus template (Online/Hybrid Course Syllabus) based upon student learning outcomes for the course. A syllabus should fully disclose the faculty member's expectations and requirements of the students enrolled in the course. A syllabus for each course must be submitted to the unit's academic dean in a timely manner so that the dean can submit each syllabus to the Office of the Vice Chancellor for Academic Affairs no later than the first day of class each semester. A course outline will not suffice as a syllabus. The course syllabus must be posted in Blackboard no later than the first day of class.

Library Resources

The Fred J. Taylor Library and Technology Center and its website provide access to materials students may need for a course. Hardcopy books, periodicals in print or microfilm, links to all e-journals, e-newspapers, electronic databases, etc. are available.

The library website:

https://www.uamont.edu/academics/library/index.html

The Learning Management System

The University of Arkansas at Monticello supports only Blackboard for online course development and delivery. This learning management system creates a course-development environment that includes a repository for content files including documents, presentations, multimedia, and synchronous (chat) and asynchronous (threaded discussions); an assessment tool capable of randomly selecting items from a cadre, and a grade book function that can be created to weight components of the course.

The Office of Information Technology is an immensely valuable resource to faculty developing and teaching online classes.

It is the faculty member's responsibility to prepare the content in the learning management system *prior* to the official start date of the course.

Computer and Software Requirements

You need to know how to do the following:

- o Basic operation of a desktop computer and web browser
- Create folders and save files
- o Find, copy, move, rename, and delete files
- Create backup files
- o Create, edit, format, spell check, save, retrieve, and print a document
- Copy/paste information

A diagnostic check can be run from the following link: Blackboard Browser Checker

Textbooks and Instructional Materials

Each instructor is responsible for completing the Textbook Order Form as required by the University Bookstore prior to April 1 and November 1 of each year. Each instructor is responsible for maintaining his/her own instructional materials.

Tests and Examinations

Tests and examinations are the responsibility of the instructor unless the academic unit requires a mandated final exam. Each instructor is encouraged to administer a sufficient number of tests and/or evaluated assignments to provide immediate feedback to a student indicating his/her progress in the course. It is important to have enough graded activities prior to the last date to withdraw from a course to permit a student to make a decision about withdrawing from the course with a "W" grade. The instructor should check with his/her supervisor concerning specific departmental test policies. If the instructor requires any exam to be proctored, this policy must be clearly stated in the course syllabus and emphasized to students the first day of class.

University Support for Distance Education

The Office of Information Technology is located on the second floor of the Student Success Center Suite 207. Their phone number is 460-1036. The Office of Information Technology provides

support for distance education faculty and students. This office also provides training for online course development and teaching.

Compensation

See <u>UAM OPERATING PROCEDURE 440.2</u>

Appendix K – UAM Student Distance Education Handbook

UNIVERSITY OF ARKANSAS AT MONTICELLO

Monticello, Arkansas

STUDENT HANDBOOK FOR DISTANCE EDUCATION

STUDENT HANDBOOK FOR DISTANCE EDUCATION

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Welcome

UAM offers high-quality online classes and academic programs to accommodate the lifestyles, needs, and interests of its students. This student handbook for distance learning, a supplement to the full UAM Student Handbook <u>Life At UAM (uamont.edu)</u>, outlines resources meant to enhance a student's online experiences, help assure academic success, and provide guidance for policies and procedures pertaining to online classes.

UAM Vision

The University of Arkansas at Monticello will be recognized as a model, open access regional institution with retention and graduation rates that meet or exceed its peer institutions.

Through these efforts, UAM will develop key relationships and partnerships that contribute to the economic and quality of life indicators in the community, region, state, and beyond.

UAM Mission Statement

The University of Arkansas at Monticello is a society of learners committed to individual achievement by:

- Fostering a quality, comprehensive, and seamless education for diverse student learners to succeed in a global environment;
- Serving the communities of Arkansas and beyond to improve the quality of life as well as generate, enrich, and sustain economic development;
- Promoting innovative leadership, scholarship and research which will provide for entrepreneurial endeavors and service learning opportunities;
- Creating a synergistic culture of safety, collegiality and productivity which engages a diverse community of learners.

UAM Core Values

- *Ethic of Care*: We care for those in our UAM community from a holistic perspective by supporting them in times of need and engaging them in ways that inspire and mentor.
- *Professionalism*: We promote personal integrity, a culture of servant leadership responsive to individuals' needs as well as responsible stewardship of resources.
- *Collaboration*: We foster a collegial culture that encourages open communication, cooperation, leadership and teamwork, as well as shared responsibility.
- Evidence-based Decision Making: We improve practices and foster innovation through assessment, research, and evaluation for continuous improvement.
- *Diversity*: We embrace difference by cultivating inclusiveness and respect of both people and points of view, and by promoting not only tolerance and acceptance, but support and advocacy.

UAM Student Learning Outcomes

- Communication: Students will communicate effectively in social, academic, and professional contexts using a variety of means, including written, oral, quantitative, and/or visual modes as appropriate to topic, audience, and discipline.
- *Critical Thinking:* Students will demonstrate critical thinking in evaluating all forms of persuasion and/or ideas, in formulating innovative strategies, and in solving problems.
- Global Learning: Students will demonstrate sensitivity to and understanding of diversity issues pertaining to race, ethnicity, and gender and will be capable of anticipating how their actions affect campus, local, and global communities.
- *Teamwork:* Students will work collaboratively to reach a common goal and will demonstrate the characteristics of productive citizens.

Definitions of Online Course Delivery Methods

- Online Courses A course that is taught (delivered) fully online.
- **Hybrid Courses** A course that combines face-to-face (in-person) and online instruction.

A Successful Online Learner

- Is responsible for maintaining his/her own equipment and internet connection.
- Is expected to communicate in an appropriately professional manner at all times. (See Appendix A.)
- Is responsible for meeting all deadlines. A student must plan ahead. Procrastination is a fatal error.
- Is expected to have a high-speed internet connection. Although most UAM courses will run to some extent on a dial-up connection, it is not efficient.
- Is generally proficient in the use of computers and is specifically proficient in the use software such as email and word processing.
- Participates in the class with the instructor and classmates. A student should ask questions
 when he does not understand the material. Such questions could benefit other students in
 the class.
- Takes notes.
- Reads, listens to, and/or watches all course materials.
- Demonstrates self-discipline.
- Obtain required course materials (i.e. textbooks, software codes, etc.) in a timely manner
- Is able to problem-solve.
 - ✓ For example, the student takes appropriate action if he has a family emergency, if the electricity goes off, if his computer crashes, if he loses his flash drive.

Expectations: the Course Syllabus as Contract

A student must carefully read the course syllabus. It is a contract between the student and the instructor.

The information in a syllabus will include but not necessarily be limited to the following:

- ➤ An outline of what will be taught
- > A description of assignments
- > The number of tests and the dates of those tests
- ➤ The deadlines for assignments
- An explanation of how the instructor will know that the student understands the course content and how the student will be graded
- > The class attendance policy
- The circumstances under which missed work can be made up.

If a student does not understand any of the course policies, deadlines, assignments, or requirements, he should immediately ask the instructor for clarification. If a student asks no questions, the instructor will assume the student understands everything stated in the syllabus.

A student is also expected to observe proper online etiquette at all times. See Appendix A.

Knowing What Is Due:

- Review your course syllabus.
- > Check this Blackboard activity stream.
- > Review your course calendar.
- Review your grade book for upcoming due dates
- > Check your Blackboard messages.
- Review any course notices (announcements, emails, etc.)
- ➤ Participate in your discussion boards if you have them yes, they do matter

Attendance Policy

Regular class attendance—in both face-to-face classes and online classes—is an essential part of a student's educational experience and a requirement for accurate evaluation of academic progress. The faculty assumes that college students recognize the need for regular attendance in order to succeed academically and will therefore comply with all attendance requirements.

UAM expects students to be diligent in the pursuit of their studies. Students are responsible for making appropriate arrangements with their instructors regarding any absence, whatever the reason. Students are always responsible for all materials covered during an absence. Such arrangements should be made prior to an absence whenever possible. Faculty members may establish specific attendance requirements, which will be stated in the course syllabus.

It is critical for online students to note that attendance in an online course requires the submission of an academic assignment, participation in an online discussion about academic matters, and/or initiation of contact with the instructor to ask questions about an academic subject. The attendance requirement is NOT fulfilled by a student merely logging into the class.

Library Resources

The Fred J. Taylor Library and Technology Center and website provide access to materials a student may need for a course. Hard-copy books, periodicals in print or microfilm, links to all e-journals, e-newspapers, electronic databases, etc. are available for the student's success.

The library website is available at the following link:

https://www.uamont.edu/academics/library/index.html

Support for Distance Education

The Office of Information Technology provides support for distance education students. Students can find important information on IT website: https://www.uamont.edu/it/index.html. You can also use this link to submit an IT Work Order: https://www.myschoolbuilding.com/sso/default.aspx?acctnum=865328640. They are also available by phone (870-460-1036) or in person. Students may also email IT at these email addresses: uam-ithelp@uamont.edu or blackboard@uamont.edu. Their office is in the Student Success Center Suite 207. Their regular business hours are Monday – Friday 8:00 AM – 4:30 PM CST. Their summer hours are Monday – Thursday 7:00 AM – 5:30 PM CST and offices are CLOSED on Fridays. They will try to assist as soon as they can. If they are on personal leave or vacation time, then it will be when they return to the office.

Technology Requirements

To access online courses, a student must log into <u>Blackboard</u>. Courses will not appear in Blackboard until the first day of classes. Blackboard strongly recommends using the latest version of Google Chrome or Mozilla Firefox for Windows or Mac. *A student must not use Microsoft Edge or Internet Explorer*. The following link allows a student to see whether his browser is supported by Blackboard: <u>Browser Checker</u>. Additional technology information is located in <u>Appendix C.</u>

A student must not attempt to take an online class on a phone.

Textbooks

A textbook will most likely be required, even though a class is online. The class syllabus provides details regarding textbooks and other required course supplies.

Time Requirements

An online class may provide some flexibility in regard to when coursework is done, but it requires as much time as—and possibly even more time than—a face-to-face class. Students should be prepared for this prospect.

Time constraints are set by the University. For example, if an assignment is due at midnight, that is midnight (Central Standard Time) on the UAM campus, not midnight in the student's time zone. Turning in assignments early and not waiting until the last minute will save a student much stress and help the student avoid last-minute mishaps that could result in an assignment being late and thus penalized.

In the majority of online classes, students *cannot* work at their own pace: faculty have periodic assignments that are due perhaps daily, weekly, or following some other timeframe set out in the course

syllabus.

A student must set aside time to access his course on a regular schedule—often daily—in accordance with the requirements stated in the syllabus.

Proctored Testing

Some online classes require proctored testing. Proctored <u>final</u> exams may be taken at the Testing Center located in suite 201 of the Student Success Center or at an approved testing site. A list of approved testing sites can be found on the UAM Testing Center website: https://www.uamont.edu/life/testing/index.html. A student may also find an alternate testing site if he lives more than 75 miles from UAM. *The instructor must approve any testing site not listed in the above list of approved testing sites prior to testing*. An alternate testing site must be approved by having the student and proctor complete the Alternate Testing/Proctor Request Form (Appendix B) on or before Friday of the second week of class. The completed form should be emailed to the instructor.

Failure to secure appropriate off-site testing by a student who cannot use UAM's Testing Center or approved testing site will result in the student being dropped from the course unless he has communicated with the instructor. Once a student has selected a testing site, the student will not be allowed to change testing sites. The instructor will send testing materials to the indicated testing site.

It is the student's responsibility to check with the alternate testing site for the dates and times of operation if the student is taking the test at a site outside the UAM area or an approved testing site. Students must present government issued identification (i.e. driver's license) upon testing at any testing site. Failure to do so will result in the inability to take an exam.

Choosing an Alternate Testing Site

If a student chooses a testing site not listed on the approved list of testing sites, an alternate testing site may be selected. Remote site testing must be at a college, university, or military Educational Services Office. Test proctors must be authorized by UAM to administer tests or in the case of Educational Services Office; personnel must be assigned or appointed to the Educational Services Office department.

There are two ways that a remote test site can be identified:

- 1. Contact the local college, university, or Educational Services Office.
- 2. Check the National College Testing Association Website at https://www.ncta-testing.org/list-of-certified-centers. This is a free referral service to facilitate distance learning testing.

These testing sites have been verified and confirmed as meeting UAM testing standards. Any testing fees charged by non-UAM testing centers are the responsibility of the student. Once a college, university, or Educational Services Office has agreed to proctor the tests, the student will need to work with the Educational Services Office to complete and return the Alternate Testing Site Location Form to the instructor no later than one week prior to any online testing.

Student Academic Grievances and Appeals

Informal Resolution

Undergraduate students who wish to seek further review of an academic action by the University

| or a University employee (in an off | ficial capacity) that the st | udent contends was in vio | plation of written |
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academic policies, or constitutes unfair or unequal application of such policies, should first seek to resolve such concerns through informal discussions. In particular, grievances regarding academic matters should generally begin with informal discussions with the student's instructor or with the faculty member supervising a course. If such informal discussions do not reach a satisfactory resolution, then the student may pursue a grievance following the steps in this policy.

Formal Grievance Process

For an academically related grievance, the written grievance shall be submitted to the academic unit chair, director, academic dean or assistant vice chancellor (for a technical campus). If the concern relates to the chair, then the written grievance may be submitted to the dean who may appoint an alternate official to consider the grievance. If the concern relates to the dean or the assistant vice chancellor, then the written grievance may be submitted to the relevant vice chancellor.

Appeals

If the student believes the grievance decision is in error, then that person may, within 10 working days after the date of the written decision, appeal the decision to the relevant dean or vice chancellor. The administrator considering the appeal will review the material provided by the student, the grievance decision, any other material which has been assembled regarding the matter, and any applicable university policies and may, at his or her discretion, gather any additional information that will be helpful to a decision, whether in writing or through meeting or consulting with any individuals deemed necessary in the administrator's discretion. The administrator reviewing the appeal shall make a decision, in writing, within 10 working days of receiving the student's grievance, or as soon as possible thereafter. The appeal decision shall be final.

Grade Mediation Appeal Structure for Undergraduate Students

If a student questions the fairness or accuracy of a grade, there is recourse through a student grade appeal structure. Disagreements shall be heard that allege the instructor's policy was not applied consistently to all students, differed substantially from the announced policy, or that a policy was not announced. All grievances concerning course grades must be filed within 120 days at the end of the term in which the grade that is being appealed was assigned. The procedures are:

The student should first discuss the matter with the instructor involved, doing so as soon as possible after receiving the grade. The instructor should be willing to listen, to provide explanation, and to be receptive to changing the grade if the student provides convincing argument for doing so. The student's questions may be answered satisfactorily during this discussion.

If the student chooses to pursue the grievance and submits an appeal, the student shall take the appeal in written form to the appropriate department chair or dean or assistant vice chancellor of the program in which the course was instructed. The appeal should present the basis of the appeal and merits of the grievance with evidence the student may have to support the appeal. If that person determines the case has no merit, that person will inform the student and the instructor. If the student wishes to pursue the concern, the student can submit documentation to the relevant vice chancellor. If that person believes the complaint may have merit, that person will discuss it with the instructor. In the case that the department chair is the instructor, the student should submit an appeal in written form to the appropriate dean of the school or college in which the course was instructed. In the case that the dean is the

instructor, the student should submit an appeal in written form to the vice chancellor for academic affairs.

If the matter remains unresolved, the student may file an appeal with the Academic Appeals

Committee composed of faculty and/or academic staff. This committee is appointed by the Assembly. The instructor whose grade is being challenged shall not serve on this committee. The committee will examine available written information on the dispute, will be available to meet with the student and with the instructor, and will meet with others as it sees fit.

If the Academic Appeals Committee majority determines, through its inquiries and deliberations, that the grade should not be changed, the committee should communicate this conclusion to the Office of Academic Affairs or the assistant vice chancellor (for a technical campus). The Office of Academic Affairs or assistant vice chancellor will notify the student of the decision. If the committee majority determines that the grade should be changed, the committee will request that the instructor make the change and provide the instructor with a written explanation. Should the instructor decline, he or she must provide an explanation for refusing in writing to the Committee.

If the Academic Appeals Committee, after considering the instructor's written explanation, concludes it would be unjust to allow the original grade to stand, it may then recommend to the department chair, dean or assistant vice chancellor that the grade be changed. That individual (department chair, dean or assistant vice chancellor) will provide the instructor with a copy of the recommendation and will ask the instructor to implement it. If the instructor continues to decline, the department chair, dean, or assistant vice chancellor is then obligated to change the grade, notifying the instructor and the student of this action. If the dean is the instructor of the course, then it would go to the vice chancellor of academic affairs to change the grade.

Appendix A

University of Arkansas at Monticello Netiquette

Source: http://en.wikipedia.org/wiki/Netiquette

Network Etiquette (netiquette) is "cyber speak" for etiquette on-line and in e-mail: manners, civility, and shared rules. The rules of netiquette apply to everyone who uses the Internet or any kind of network to communicate to any other person in the world. Here are some very simple rules to follow that will help you to converse more smoothly with your fellow computer users.

Treat other people in cyberspace the way you would like to be treated. Remember that without facial expressions some comments may be taken the wrong way.

Review discussion threads before you enter the discussion. Be careful to write only relevant comments.

Maintain threads by using the "Reply" button rather than starting a new topic.

Limit the abbreviations that you use, such as "u" for "you," and "k" for "OK". This will ensure that everyone understands your message.

Assume that the other person will not immediately know what you are talking about; give a little

background information to help the reader understand your topic or position.

Respect other people's privacy.

Writing something in all CAPS is equivalent to yelling. Try to avoid this.

An emoticon is a text representation of an emotion. For example, :) is equivalent to a smile. Do not overuse emoticons, but they can be useful to avoid having a statement be misinterpreted.

Do not make insulting or inflammatory comments to other members of discussions. Be respectful of other's ideas.

Do not leave the subject field of an e-mail blank. Your e-mail provider may send it to BULK, or JUNK instead of the inbox of the receiver, or your anti-virus software may think that it is a virus of some kind. A subject also allows the receiver to tell what the email is about at a glance.

NEVER give out personal information of any kind via email, chat, or instant message. <u>Phishing</u> refers to the tactic used by criminals in which they will send a legitimate sounding email to your address and ask for information to verify an account. A reputable company, such as a bank, will not ask for usernames, account numbers or passwords through e-mail.

Try to avoid sending an excessive number of e-mails/discussions back-to-back to a person. The initial first email and then a follow-up if needed should be enough...three at the max.

Appendix B

University of Arkansas at Monticello-Test Center Exam Administration Request Form

The University of Arkansas Monticello Testing Center, located in the Student Success Center, Second floor, Suite 201, offers a facility and the personnel to administer Exams during its regular hours of operation, Monday through Friday, 8:00 a.m. to 4:30 p.m. (unless otherwise specified/arranged). In order to provide the most efficient and consistent services to our students, the UAM Testing Center provides specific exam details related to the instructions, conditions, and dates under which examinations are to be administered.

Exams are arranged by appointment and students are expected to contact the Testing Center prior to the date the test is to be administered to schedule an appointment. *It is extremely important all faculty utilizing the Testing Center provide timely and accurate exam information in order to assist in finalizing the exam through the Testing Center.* This form MUST be on file before students can schedule an appointment. Please complete the following information:

| University/Technical Campus: _ | | | | | |
|--|--|--|--|---------------------------------------|--------------|
| Instructor's Name: | | | | | |
| Course Name/No: | | | | | |
| | | | | Materials allowed (If any): | |
| | | | | Date Range for Exam (Test wind | dow): FromTo |
| Passwords (if Exam is administe | red online): | | | | |
| Computer Based Exam: | Paper and Pencil Exam: | | | | |
| *Additional instructions (calcula | ator, notes, diagrams, formula sheets, etc.) | | | | |
| | | | | | |
| exam can be hand delivered, mailed, of than 48 hours prior to the scheduled to | nistration: computer-based and paper . If the Exam is administered via paper and pencil, the or emailed to the Testing Center. All tests should be provided to the Testing Center no later est time. Test dates for Finals should be scheduled with the Testing Center as soon as it is M Test Center will be utilized for the Exam. | | | | |
| dates can be included on the Testing of classes, via syllabus and verbally so the | s other exams, it is extremely important to schedule Exam dates as soon as possible so these calendar in advance. This information must also be relayed to the students enrolled in these he students are aware of the dates to call to make an appointment. Please provide additional we the exam should be returned (scan and e mail, U.S. mail, etc.) | | | | |
| administered. This fee is payable thro fee payment, the student will be provi throughout any semester, there is a on | udents are required to pay a \$20.00 exam fee, due to be paid the day the Exam is sugh the UAM Cashiers Office, located in Harris Hall, Second Floor, Room 204. Upon exam ided a receipt to bring to the Test Center staff. If the student will take multiple exams ne-time Exam fee of \$20.00 and the fee will reduce to \$10.00 thereafter for remaining Exams sure each student is advised to bring a valid government issued photo I.D. (i.eDriver's and exam administration. | | | | |
| Faculty/Staff Signature | Date: Contact Tel No: | | | | |
| Please complete this form with the required | | | | | |

thomasr@uamont.edu & leggettw@uamont.edu or via fax at 870-460-1403. For any questions, please call 870-460-1454 during normal business hours.

Appendix C

University of Arkansas at Monticello Information Technology Department Handout

UAM Home page - www.uamont.edu

Information Technology Homepage - https://www.uamont.edu/it/index.html

Information Technology Work Order - https://www.myschoolbuilding.com/sso/default.aspx?acctnum=865328640

HOW TO LOOK UP YOUR USERNAME AND PASSWORD: Google Chrome Is Recommended

- On the UAM home page, scroll down to the bottom of the screen
- On the IT resources ribbon, click on Account Lookup
- Enter your last name, the last four digits of your Social Security Number, and use the Calendar icon to find their birthday. If you don't have a Social Security Number use XXXX. After all required information is entered, click Search. Your UAM ID number will appear. Click on the UAM ID Number and this will show all of your UAM login information.

STUDENT EMAIL: The official means of communication for all UAM services. Google Chrome Is Recommended

- On the UAM home page, scroll down to the bottom of the screen and click on EMAIL
- Windows Security/ Authentication Required
- Enter Email address (include @uamont.edu) and enter password
- Click OK

WEEVILNET STUDENT SELF-SERVICE: Google Chrome Is Recommended

(Academic Information: Class Schedule, Grades, GPA, Billing/ Account Information, To Do List/ Holds, Course History (unofficial transcript), & Personal Information)

- On the UAM home page, scroll down to the bottom of the screen
- On the IT resources ribbon, click on WEEVILNET
- Click on the link "WeevilNet Student Self-Service"
- Enter email User ID (do not include @uamont.edu) and enter password
- Click SIGN IN

HOW TO LOGIN TO BLACKBOARD: Chrome Is Recommended

- On the UAM home page, scroll down to the bottom of the screen
- On the IT resources ribbon, click on BLACKBOARD
- Email username (include@uamont.edu) and Password (begins with Um)
- Click LOGIN

MICROSFOT MULTIFACTOR AUTHENTICATION

Please note Blackboard will redirect you to a Microsoft login screen. Multi Factor Authentication provides extra security and the convenience of a Single Sign On experience. Example: if you log into email via a web browser, you automatically gain entry to Blackboard when visiting its URL.

More information regarding UAM's Multifactor Authentication and Single Sign.

UAM adopted Single Sign On and Multifactor Authentication for Blackboard to align Blackboard login functions to be the same as Campus email and other UAM online systems.

If you are having trouble, please contact the Office of Information Technology at 870-460-1036 or via e-mail at <u>UAM-ITHelp@uamont.edu</u> and an IT Staff member will be more than happy to help them get this taken care of.

A student should have basic computer skills including:

- Operate a Windows-based computer (or MAC if that's what you have) and all its basic functions
- Make sure you know how to update your PC to ensure it is running the latest version of its operating system. If you do not know how you can Google it or ask someone for help who may know. PC health matters!
- Create folders in your File Explorer to organize course documents and assignments you need to submit...this will keep you organized
- Find, copy, move, rename, and delete files (NOTE: make sure you name the file with the name of the assignment plus your name so you can find it easier, or make sure to follow your professor/instructor's naming instructions.)
- Always make sure your assignments are saved in the correct area on your computer and double-check to ensure you saved it where it belongs.
- Create backup files just in case your computer crashes
- Be aware that Blackboard does NOT allow Google Docs or MAC Pages because most faculty can't open those types of files
- Create, edit, format, spell check, save, retrieve, and print a document correctly
- Make sure you have Microsoft Office Products installed on your PC. With you being a student, you get five FREE licenses to Office 365 for up to five devices. Here is how to download Office 365 to your PC: Install Office
- Copy/paste information (NOTE: the common short for Copy is Ctrl + C and for Paste is Ctrl + V.
- Use email to: Send, receive, store, and retrieve messages. (NOTE: UAM e-mail is the official method of communication between students and University faculty/staff. All official communication with students via email must be sent to the student's UAM-issued email address (in the format *****@uamont.edu"). This is UAM's route for communication for everything from bills, finalize your bill, financial aid, and housing. ALWAYS CHECK YOUR UAM STUDENT EMAIL.
- Send, receive, and open attachments
- Utilize a web browser to access the internet, Open web pages, Open, print, and save in Adobe Acrobat (.pdf), Copy URLs to Microsoft Word, Use a search engine (Always have multiple Internet browsers to use in case something happens)
- Make sure you know how to update your Internet Browsers and how to clear your cache/cookies/browser history. You should ensure that you can do this for Google Chrome, Mozilla Firefox, and Microsoft Edge on your PC and Safari for Mac users. You can Google how to do this.
- Blackboard supported file types include DOC, DOCX, HTM, HTML, MP3, MPG, PDF, PPT, PPTX, XLS, XLSX, RTF, TXT, ZIP, and most image types.
- Please make sure you are entering your login credentials correctly. This will ensure your account is not locked.
- If you need your MFA to be reset, you will need to contact IT IMMEDIATELY to get this reset for you. Students can't do this on your end
- If you're traveling out of the country, PLEASE let IT know so we can configure your account for this for data security reasons to protect your/UAM information.
- Work with videos (recording them/saving them/uploading them) Video submissions can take longer to submit in Blackboard rather than in other types especially depending on the video size (Hint: click submit one time and let it sit there and submit the video. Do not continue to click submit multiple times.
- Please do not cheat...there are ways of seeing if you did. Students who cheat waste valuable time when that time can be used to learn the materials and pass the courses
- Education Majors: if you need Anthology Portfolio help, please make sure to reach out for assistance so you fully understand how to use the product and what needs to be submitted in Chalk and Wire vs. what needs to be done in Blackboard. You will purchase your Anthology Portfolio access code from the UAM Bookstore.
- Please make sure you preview your submissions BEFORE you submit it, this can save you a lot of trouble. Blackboard allows students to preview their work before hitting submit. Also, make sure you click the Submit button and not the Save as Draft button. Save as Draft is NOT submission.

- Understand how to connect your PC/tablet/smartphone to Wi-Fi and troubleshoot if needed. A secure strong Wi-Fi connection is critical for online education.
- Understand the functions of your tablet/smartphone when using those