FACULTY INFO:
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COURSE NUMBER, TITLE
16110_MAT-099-01_Intermediate Algebra_TH _8-9:15AM_WAL 210_Spring 2016

COURSE DESCRIPTION : MAT 099 serves as the prerequisite to MAT 103 or MAT 104 for students who do not have two years credit of high school algebra. The Mississippi Board of State Institutions of Higher Learning requires that all entering freshmen with an ACT subtest score of 16 or below math take MAT 099 during their first semester of enrollment at an IHL university. Students are required to **pass** the 099 class prior to taking any additional courses in that subject area. This course does not satisfy any degree requirements; however, a failing grade in a 099 course **will count** toward the student's GPA with regards to academic probation and suspension. **Students are not allowed to withdraw from any 099 course unless the student is completely withdrawing from the university. Additionally, students are required to maintain continuous enrollment in all required 099 courses until the courses have been successfully completed.** Any student receiving an F in MAT 099 will automatically be registered for MAT 099 for the next regular term of classes. If a student who has preregistered for MAT 103 or MAT 104 and fails MAT 099, the student will be dropped from the class roll of the upper level math and reinstated in MAT 099.

GENERAL COURSE OBJECTIVES (GOALS): In this course students will have opportunities to develop a deep understanding of the content by actively engaging in the course activities that require them to make sense of problems and persevere in solving them realizing that it is okay to make mistakes and that problem solving is often an iterative process, reason abstractly and quantitatively, construct viable arguments, attentively listen to and respectfully critique the reasoning of others with diverse perspectives, model with mathematics using multiple representations of problems and solutions, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning. Through their work on collaborative application tasks students will be exposed to multiple problem solving strategies and multiple representations of solutions. Students will develop a growth mind set. At the completion of this course students will have the knowledge and skills necessary to be successful in their future mathematics course work and the reasoning skills needed to solve problems in their personal and professional lives.

GENERAL EDUCATION COMPETENCIES: Students will demonstrate competency in:
GE 1. **Critical and Creative Thinking** – Developing sound analytical and reasoning skills and the ability to use them to think critically, solve problems, analyze logically and quantitatively, and effectively respond to change.
GE 3. **Quantitative Skills** – Developing enhanced abilities for symbolic and numeric reasoning and the ability to use and understand statistical and other quantitative techniques to interpret data.

SPECIFIC OBJECTIVES: At the completion of the course, the student will be able to:
1.   Find the sum, difference, product, and quotient of any two real numbers.
2.   Evaluate, simplify and perform operations with algebraic expressions.
3.   Solve linear, quadratic and miscellaneous equations and their applications.
4.   Solve linear inequalities.
5.   Factor and perform operations with polynomials.
6.   Simplify radical expressions and solve equations involving radicals.
7.   Find the slope and equations of lines and sketch their graphs.

MAJOR STUDENT ACTIVITIES: Research shows that people learn best from concrete experience, interacting with the content and with other learners, engaging in challenging tasks, being held accountable for their work, and receiving frequent feedback on their progress. The following course activities have been designed based on these principles:
1.   **Online Instructional Resources:** Outside of class students will be responsible for individually interacting with the online tutorials under the "Learn" tab on http://learn.hawkeslearning.com and/or watching the video tutorials at http://tv.hawkeslearning.com/. After being exposed to the material, you will be responsible for working through the practice problems related to the content (under the "Practice" tab). The "Learn" and "Practice" sections will prepare students for their other course assignments.
2.   **Homework:** Outside of class students will individually be responsible for completing homework assignments (under the "Certify" tab in the Hawkes Learning System). Students must obtain mastery (80-100% accuracy) of the content in order to "Certify." There are 31 total homework assignments.
3.   **Readiness Assurance Tests (RATs):** Each of the four instructional sequences will begin with a multiple-choice RAT (with 10 items and 5 possible responses per item) based on the assigned readings/instructional videos/ online tutorials. You will actually take each RAT twice, once on your own (IRAT) and once as a team (TRAT). You will use instant feedback forms to take the team RAT which will provide your team with the opportunity to earn partial credit (1st response = 10 point, 2nd response = 5 points, 3rd response = 2 points, 4th or 5th response = 0 points). Your team will also be given the opportunity to write a evidence-based appeal after any question
4.   **Mini-Lecture:** After the RATs, I will provide the class with direct instruction aimed at addressing overarching themes, summary reflections, and un-resolved questions. The mini-lectures will prepare students for their other course assignments.
5.   **Team Application Tasks:** Throughout the mini-lectures you will be required to work on application tasks with your team members. The team application tasks will prepare students for their other course assignments. Students will also evaluate their team members' performance at the middle (formative) and end (evaluative) of the semester.
6.   **Presentations:** Throughout the semester students will be asked to present problems to the class. The problems will be related to homework problems and team application tasks. Students will be provided with ample time to prepare for their presentations.
7.   **Individual Tests:** At the end of each of the 4 units for two days so that you can take a practice and real unit test.
8.   **Final:** There will be a cumulative final exam containing both multiple choice and constructive response items that you will take independently at the end of the semester.

EVALUATION AND GRADING: How grades will be earned:
20% Homework Assignments (on learn.hawkeslearning.com)
10% Presentations (throughout the semester)
5% Team Member Performance Evaluation (peer graded @ end of semester)
10% Readiness Assurance Tests (four at the beginning of each unit)
30% Unit Tests (four at the end of each unit)
25% Final Examination

Grading Scale: A=93-100   B=85-92   C= 77-84   D=70-76   F=Below 70

Managing your life and this course: Missed assignments receive no credit. As many of the assignments in the course are team-based and completed in class, it is impossible to schedule make-up opportunities for missed assignments. Since there will be occasions in your life when missing a class meeting or missing a deadline for an assignment is simply unavoidable (i.e. illness; personal crisis), this course has a few built-in safety valves. These are your tools to use in managing your life, please manage these carefully and be careful not to waste your safety valves early in the semester, because you may need your droppable grades to offset any unforeseen low scores or difficulties later in the semester:
     Safety Valve One: Out of your 4 RAT grades the lowest 1 will be dropped (individual and team component)
     Safety Valve Two: Out of the 31 homework assignments the lowest 5 will be dropped
     Safety Value Three: Late homework will receive a 10, 20, 50, or 100% penalty if it is 1, 3, 5 or $\geq$ 5 days late, respectively
     Safety Value Five: Out of the 4 individual tests the lowest 1 can be replaced with your final exam grade (if it is higher)
     Safety Valve Six: You will have the opportunity to revisit your individual presentations within one week if necessary

PRESENTATION METHODS:
1. Learning by engaging in application tasks during class to include small group work and/or lab work via Hawkes 60%.
2. Class discussions to check for understanding, review, and summarize application tasks 30%.
3. Lecture with demonstration addressing overarching themes, summary reflections, and un-resolved questions 10%.
4. Hawkes video and practice problems.

ACADEMIC HONESTY POLICY: Cheating and plagiarism are not tolerated. If it is established that a violation has occurred, the instructor may determine the penalty, or he/she may report the offense to the department chair and dean of the school. The usual penalty involves a grade of zero on the test, examination or paper in question.

AMERICANS WITH DISABILITIES ACT: Delta State University is committed to a policy of equal employment and educational opportunity. Delta State University does not discriminate on the basis of race, color, religion, national origin, sex, age, disability, or veteran status. This policy extends to all programs and activities supported by the University. The Office of Disability Services is available for students who require academic accommodations due to any physical, psychological, or learning disability. Any student with a clinically diagnosed disability who desires accommodation under this Act should contact Dr. Richard Houston in the Office of Disability Services at 846-4690.

ADDITIONAL COURSE-SPECIFIC RULES, POLICIES, EXPECTATIONS

COURSE MATERIALS: In order to complete the assignments and assessments that are required to earn credit in this course you are ***required*** to purchase the following:
- **Intermediate Algebra access code for the web-based Hawkes Learning System** available at: **http://www. learn.hawkeslearning.com**
- **Scientific or graphing calculator, Pencil, Notebook**

CLASS ATTENDANCE: Prompt and regular attendance is necessary for success in this course. MAT 099 students enrolled in a two-day-per-week class who accumulate more than ***4 total absences, excused and unexcused combined, will receive a grade of F for the course.*** This F is considered in the computation of the student's GPA. **To be counted present, you must arrive on time for the class and remain in class the entire time.** When you are tardy for class, it is your responsibility to request that I change the recorded absence to a tardy. This must be done on the day the tardy occurs. **A maximum of 3 tardies will be allowed** without consequences. **Each additional tardy** will be recorded as an **unexcused absence**.

HOMEWORK DEADLINES: Late homework will receive a 10, 20, 50, and 100% penalty if it is 1, 3, 5, or $\geq$ 5 days late, respective. There will be no extra credit or make-up work available to improve your grade. All assignment deadlines are indicated on the syllabus and will be announced in class.

EXAMINATIONS: Students are expected to take tests and examinations at the scheduled times. Make-up tests will be given only to those students presenting a written excuse from the Vice President for Academic Affairs, the Student Health Service, or a doctor. All make-up tests must be completed in Dr. Cope's office during her office hours within three days. Should a conflict arise, the student should contact the instructor prior to the date of the test to make arrangements for taking the test or exam.

TUTORING: Tutoring is available in the Student Union building Room 311. Students are ***strongly encouraged*** to make attending my office hours and going to the tutoring center a part of their regular schedule. Additionally, tutoring is available in the math department by appointment. Finally, there will be math tutoring labs every Tuesday 3-5 PM, Wednesday 2-5 PM, and Friday 12-1 PM. Students who attend lab will receive extra credit.

CELLPHONE POLICY: Please show respect for your fellow students by making sure that your cell phone is turned off before entering the classroom. Due to their other functions, cellphones may not be used as calculators.

TENTATIVE SCHEDULE

Week	Topics Addressed	Assignments
Instructional Sequence One: *Modeling Real World Situations Using Equations and Inequalities* Weeks 1-4	

Weeks 1 – 4	1.3b – Addition w/Reals
	1.3c – Subtraction w/Reals
	1.3d – Mult. & Div. w/Reals
	1.3e – Order of Operations
	1.4a – Simplify Expressions
	1.4b – Solve Linear Equations
	1.5b – Solving Formulas
	1.6 – Applications
	1.7a – Solve Linear Inequalities
	4.1a – Simplify Integer Exp.
	4.1b – Simplify Integer Exp.
		◊ Complete "Learn" (read material/watch videos)
		◊ Readiness Assurance Test
		   (**Date:**_____)
		◊ Complete "Practice"
		◊ Complete "Certify" by:
		      1/17- 1.3b, c, d, e
		      1/24- 1.4a, b
		      1/24- 1.5b
		      1/31- 1.6,1.7a
		      1/31- 4.1 a, b
		◊ Testing in Lab 2/2 and 2/4

Instructional Sequence Two: *Graphing Linear Relationships* Weeks 5-7	

Week 5-7	2.1a-Cartesian Coordinate System
	2.1b-Graph Linear-Plot Points
	2.2-Graph Line-Slope/Intercept
	2.3a-Find Equation of Line
	2.3b-Graph Line-Point/Slope
		◊ Complete "Learn" (read material/watch videos)
		◊ Readiness Assurance Test
		   (**Date:**_____)
		◊ Complete "Practice"
		◊ Complete "Certify" by:
		      2/14- 2.1 a,b
		      2/14- 2.2
		      2/21- 2.3 a,b
		◊ Testing in Lab 2/23 and 2/25

Instructional Sequence Three: *Investigations with Factoring* Weeks 8-11	

Weeks 8-11	4.2b - Add and Subtract Polynomials
	4.3a - Multiplying Polynomials
	4.3b - The FOIL Method
	4.5a - GCF of a Polynomial
	4.5b - Factoring by Grouping
	4.6a - Factoring Trinom. Trial and Error
	4.6b Factoring Trinom. ac-Method
	4.7a - Special Factorizations - Squares
	4.7b - Special Factorizations - Cubes
	4.8 Solving Equations by Factoring
		◊ Complete "Learn" (read material/watch videos)
		◊ Readiness Assurance Test
		   (**Date:**_____)
		◊ Complete "Practice"
		◊ Complete "Certify" by:
		      3/6 - 4.2b
		      3/6- 4.3a,b
		      3/13- 4.5a,b
		      3/13- 4.6a,b
		      3/20- 4.7a,b
		      3/20- 4.8
		◊ Testing in Lab 3/22 and 3/24
		◊ Midpoint Peer Evaluations

Instructional Sequence Four: *Quadratic Equations* Weeks 12-14	

Weeks 12-14	7.1a - Quad. Equations: Square Root
	7.1b - Quad. Equations: Completing the Square
	7.2 - Quad. Equations: Quad. Form.
	7.3 - Applications: Quadratic Equations
	7.5 - Graphing Parabola
		◊ Complete "Instruct" (read material/watch videos)
		◊ Readiness Assurance Test
		   (**Date:**_____)
		◊ Complete "Practice"
		◊ Complete "Certify" by:
		      4/3- 7.1a,b
		      4/10- 7.2
		      4/10- 7.3
		      4/17- 7.5
		◊ Testing in Lab 4/19 and 4/21

Week 15 Practice Final Exam in Computer Lab	
Week 16 **Date/Time:** Final Exam in Computer Lab	

Directions for Accessing Hawkes Learning System:

Go to **learn.hawkeslearning.com** and click **New User** to create an account.

A. If you have already purchased your materials, enter your License Number (located on the yellow sticker in your materials) or Access Code and click **Validate.**

B. If you need to purchase an Access Code, use the link to purchase one from the Hawkes website.

    a. Select the option to **Purchase an Access Code**.
    b. Fill out the form with your information.
    c. Click **Submit** to receive your personalized Access Code.
    d. Copy and paste or type your Access Code into the New User Setup page.
    e. Fill out the form with your information or confirm the preloaded information.
    f. Set your password, time zone, and security questions.
    g. Add a profile image.

C. **Enroll in Your Course**

    a. Select your instructor and section from the drop-down menus and click **Enroll**.
    You are now ready to complete assignments for this course!

D. **Explore Your Course**

    a. Watch the Video Tour located under the profile menu to learn more about Hawkes.
    b. The **Dashboard** includes your course information and the mini To-Do List.
    c. The **To-Do List** shows you when you need to complete homework or take a test.
    d. The **Navigation Toolbar** contains links to important tools such as your grades, eBooks, the notifications center, and messages.

E. **Complete Your Homework**
    a. Each lesson involves three phases: Learn, Practice, and Certify.
    b. Use Learn and Practice to learn the concepts and work out practice problems.
    c. When you feel confident in the material, move to Certify to complete your homework.
    d. For additional help, go to **www.hawkestv.com** to watch videos on every lesson.

F. **Get Help**
    If you have any questions about registering your email address and password, enrolling in your course, or using the site, please contact Hawkes Technical Support.

    Phone: 800.426.9538

    Phone Hours: Monday - Friday, 8:30am - 10:00pm ET

    Online Chat Support: **www.hawkeslearning.com/chat**

    Chat Hours: 24 hours a day, 7 days a week

    Technical Support Email: **support@hawkeslearning.com**