

**FACULTY INFO:**

Liza Cope, Ph.D.

Email: [lcope@deltastate.edu](mailto:lcope@deltastate.edu)

Phone: 662-846-4512

Office: Broom Hall 282

Office Hours: Mondays, Wednesdays, and Fridays 8-12, or by appointment.

**COURSE NUMBER, TITLE**

16110 MAT-099 01 Intermediate Algebra ..T.R.. 8:00am - 9:15am EW-222 3

16536 MAT-099 02 Intermediate Algebra ..T.R.. 1:40pm - 2:55pm EW-329 3

**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. **Readings, Instructional Videos, and Online Tutorials:** Outside of class students will be responsible for individually completing reading assignments from their textbooks, watching the video tutorials at <http://tv.hawkeslearning.com/> and/or interacting with the online tutorials under the "Instruct" tab in the Hawkes Learning System. After being exposed to the material, you will be responsible for practicing problems related to the content (under the "Practice" tab). These readings, video tutorials, and practice problems will prepare students for their individual homework assignments, classroom tasks, and assessments.
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 this semester.
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 (1<sup>st</sup> response = 10 point, 2<sup>nd</sup> response = 5 points, 3<sup>rd</sup> response = 2 points, 4<sup>th</sup> or 5<sup>th</sup> response = 0 points). Your team will also be given the opportunity to write an evidence-based appeal after any question.
4. **Mini-Lecture:** After the RAT I will provide the class with direct instruction aimed at addressing overarching themes, summary reflections, and un-resolved questions. Student will receive credit for attending and participating in discussions during mini-lectures.
5. **Team Application Tasks:** After my mini-lecture you will spend most of the class time working on application tasks with your team members. Students will receive 14 weekly grades for their active participation in team tasks. Students will also evaluate their team members' performance at the middle (formative) and end (evaluative) of the semester.
6. **Individual Tests:** We will be going to the computer lab in Broom Hall at the end of each of the 4 units for two days so that you can take a unit practice and actual individual test.
7. **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% Readiness Assurance Tests (10% from IRATs and 10% from TRATs)  
5% Team Member Performance Evaluation  
20% Homework  
20% Weekly Team Task Participation  
10% Individual Tests  
25% Final Exam

**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 Valve Three:* Late homework will receive a 10, 20, 50, or 100% penalty if it is 1, 3, 4, or  $\geq 5$  days late, respectively

*Safety Valve Four:* Out of the 14 weekly team task grades the lowest 2 will be dropped

*Safety Valve Five:* Out of the 4 individual tests the lowest 1 will be dropped

### **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:

- **Courseware CD:** Hawkes Learning Systems/Quant Systems, Inc. 2011. ISBN# 978-0-918091-40-6

I also *recommend* that you purchase the following:

- **Physical Textbook:** D. Franklin Wright. Intermediate Algebra. Fifth Edition. ISBN # 978-1-932628-43-2

The courseware CD (\$85.70) and physical textbook (\$103.35 new) can be purchased at the campus bookstore. You can also download the courseware online (\$70) and purchase an e-book (\$10) at <http://www.hawkeslearning.com>

You are also *required* to bring the following materials with you to class each day:

- **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 will 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, 4, or  $\geq 5$  days late, respectively. 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.

**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

Date	Topics Addressed	Assignments
Instructional Sequence One: <i>Modeling Real World Situations Using Equations and Inequalities</i>		
Weeks 1-4		
Weeks 1 – 4 (Tuesday, January 14 <sup>th</sup> – Sunday, February 9 <sup>th</sup> )	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.	<ul style="list-style-type: none"> <li>◇ Complete “Instruct” (read material/watch videos)</li> <li>◇ Readiness Assurance Test <b>(January 14, 2014)</b></li> <li>◇ Complete “Practice”</li> <li>◇ Complete “Certify” by:               <ul style="list-style-type: none"> <li>• 1/17-1.3b, c, d, e</li> <li>• 1/21-1.4a, b</li> <li>• 1/24-1.5b, 1.6</li> <li>• 1/28-1.7a</li> <li>• 1/31-4.1 a, b</li> </ul> </li> <li>◇ Testing in Lab week of 2/3-2/7</li> </ul>
Instructional Sequence Two: <i>Graphing Linear Relationships</i>		
Weeks 5-7		
Week 5-7 (Tuesday, February 11 <sup>th</sup> – Sunday, March 2 <sup>nd</sup> )	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	<ul style="list-style-type: none"> <li>◇ Complete “Instruct” (read material/watch videos)</li> <li>◇ Readiness Assurance Test <b>(February 11<sup>th</sup>, 2014)</b></li> <li>◇ Complete “Practice”</li> <li>◇ Complete “Certify” by:               <ul style="list-style-type: none"> <li>• 2/14-2.1 a,b</li> <li>• 2/18-2.2</li> <li>• 2/21-2.3 a,b</li> </ul> </li> <li>◇ Testing in Lab week of 2/24-2/28</li> </ul>
Instructional Sequence Three: <i>Investigations with Factoring</i>		
Weeks 8-11		
Weeks 8-11 (Tuesday, March 4 <sup>th</sup> – Sunday, April 6 <sup>th</sup> )	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	<ul style="list-style-type: none"> <li>◇ Complete “Instruct” (read material/watch videos)</li> <li>◇ Readiness Assurance Test <b>(March 4<sup>th</sup>, 2014)</b></li> <li>◇ Complete “Practice”</li> <li>◇ Complete “Certify” by:               <ul style="list-style-type: none"> <li>• 3/7-4.2b</li> <li>• 3/16-4.3a,b</li> <li>• 3/21-4.5a,b</li> <li>• 3/25-4.6a,b</li> <li>• 3/28-4.7a,b</li> <li>• 4/1-4.8</li> </ul> </li> <li>◇ Testing in Lab week of 3/31-4/4</li> <li>◇ Midpoint Peer Evaluations</li> </ul>
Instructional Sequence Four: <i>Quadratic Equations</i>		
Weeks 12-14		
Weeks 12-14 (Tuesday, April 8 <sup>th</sup> – Sunday, April 27 <sup>th</sup> )	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	<ul style="list-style-type: none"> <li>◇ Complete “Instruct” (read material/watch videos)</li> <li>◇ Readiness Assurance Test <b>(April 8<sup>th</sup>, 2014)</b></li> <li>◇ Complete “Practice”</li> <li>◇ Complete “Certify” by:               <ul style="list-style-type: none"> <li>• 4/11-7.1a,b</li> <li>• 4/15-7.2</li> <li>• 4/18-7.3</li> <li>• 4/22-7.5</li> </ul> </li> <li>◇ Testing in Lab week of 4/21-4/25</li> </ul>
Week 15 Tuesday, April 28 <sup>th</sup> – Thursday, May 1 <sup>st</sup> Practice Final Exam in Computer Lab		
Week 16 Monday, May 5 <sup>th</sup> – Friday, May 9 <sup>th</sup> Final Exam in Computer Lab		

## Getting Started Using the Hawkes Learning System

### Before Getting Started:

1. Hawkes CourseID: DELTASTATEIMA
2. Instructor Name: \_\_\_\_\_
3. Course Section: \_\_\_\_\_

NOTE: Do NOT purchase used software (from other students or online vendors). The software is licensed to the original purchaser only.

### Step 1: Install the Software

Option 1- PC Users Only: Use the installation disks.

1. Insert CD#1 in your computer and follow the directions in the Setup Wizard.
2. When prompted for the Hawkes CourseID enter: DELTASTATEIMA

Option 2- PC or Mac Users: Download from Hawkes website.

1. Go to [hawkeslearning.com](http://hawkeslearning.com) and select "Download the software".
2. Choose the product to download.
3. Select either Student Install for PCs or Student Install for Mac and then "Run".
4. When prompted for the Hawkes CourseID enter: DELTASTATEIMA

### Step 2: Get Your Access Code

1. Go to [hawkeslearning.com](http://hawkeslearning.com)
2. Click "Get Your Access Code"
3. Select:
  - a. Register: If you have already purchased your materials and need to register the license number on the yellow sticker
  - b. Purchase: If you need to purchase an Access Code.
4. Fill out the form with all of the necessary information.
5. Select "Submit" to receive your personalized Access Code.
6. Copy the Access Code as it will be necessary to type or paste the code into the software in STEP 3

### Step 3: Enroll in your course

1. Double click on the Hawkes Learning Systems icon from your desktop.
2. Type or paste in your code and select "OK."
3. Save your Access Code when prompted to a USB memory stick or to your computer for future use.

\*\* Once the Access Code is saved, you will be able to use the "Load from file" option.

4. Choose your instructor and section from the drop down menus. Select "Enroll".

You are now ready to complete assignments for this course!

TIP: Watch the Video Tour, located under the Help Menu, to learn more about the software.

### Step 4: Complete Assignments

The Certify Mode is your assignment. Once you have completed a lesson, a certification code will appear. Save this code!

- If connected to internet, you will automatically receive credit in your instructor's grade book.
  - If not connected to the internet, you will need to submit the code to the grade book:
1. Save the certification code to a memory stick
  2. From a computer with internet access, go to [course.hawkeslearning.com/DELTASTATEIMA](http://course.hawkeslearning.com/DELTASTATEIMA)
  3. Select the Submit Certificate(s) tab
  4. Browse to the location where the certification code was saved and click Submit Certificate

\*\*\*Be sure to submit the certification code ON or

BEFORE the due date to receive FULL credit

### View Your Progress Report

Visit [course.hawkeslearning.com/DELTASTATEIMA](http://course.hawkeslearning.com/DELTASTATEIMA) to find:

- Homework due dates
- Grade information
- Course materials
- Communication center

Questions? Visit [hawkeslearning.com/support](http://hawkeslearning.com/support).