Developmental Mathematics (Hawkes)
MS 1013, MS 1023, MS 1123/All Sections
Fall 2017

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UserName:
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Revision Date:  08/15/2017

Course Description
Developmental Mathematics is a self-paced computerized course, with one-on-one help available from
an instructor. The entire developmental math sequence consists of fourteen modules which collectively
cover all of the arithmetic, algebraic, and problem-solving skills needed to prepare students for college-
level math courses.

Course Prerequisites/Co-requisites
MS 1013—Co-requisite:  MS 000; Pre-requisite:  0-40 on ACCUPlacer Elementary Algebra; or 0-14 on
ACT Math subtest.
MS 1023—Co-requisite:  MS 000; Pre-requisite:  41-59 on ACCUPlacer Elementary Algebra; 15-16 on ACT
Math subtest; or a grade of C or better in MS 1013 Pre-Algebra.
MS 1123—Co-requisite:  MS 000; Pre-requisite:  60-77 on ACCUPlacer Elementary Algebra; 17-18 on ACT
Math subtest; or a C or better in MS 1023 Elementary Algebra.

Required Texts and Materials
•  Three ring binder and notebook paper (no spiral notebooks allowed)
•  Hawkes Learning Systems access code
•  Calculator for Elementary Algebra and Intermediate.  Fundamental Math students may not use a
calculator until they get to Module 3 and Module 4.
•  Textbooks will be available in classroom (textbook material is available online)
### PCCUA Core Competencies

The five core competencies (STACC) are incorporated within the context of the subject being taught. The competencies address skills the College has committed to developing in all students.

1) Social and Civic Responsibility  
2) Technology Utilization  
3) Analytical and Critical Thinking  
4) Communication  
5) Cultural Awareness

### Student Learning Goals for General Education

- Students will be able to demonstrate the ability to communicate effectively in a written and oral manner. (GOAL 1)
- Students will be able to demonstrate mathematical knowledge and skills. (GOAL 3)
- Students will be able to demonstrate skills in problem solving and scientific reasoning. (GOAL 4)
- Students will be able to demonstrate critical thinking skills. (GOAL 5)

### Workplace Success Skills Acquired

- Perform arithmetic and mathematical operations.
- Solicit the views and opinions of others for solving problems and improving procedures.
- Think critically, make decisions, and solve problems.
- Extract and interpret information presented in a graph or chart format.
- Work effectively with others.
- Recognize information most relevant and important to a situation.
- Absorb and apply new information.

### Student Learning Outcomes

Upon successful completion of the Developmental Mathematics sequence, the student will be able to solve problems related to the following content areas. Each content area consists of several sections.

<table>
<thead>
<tr>
<th>Course</th>
<th>Module #</th>
<th>Content Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS 1013</td>
<td>Module 1</td>
<td>Whole Numbers, Integers, Solving Equations</td>
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<td></td>
<td>Module 2</td>
<td>Prime Numbers, LCM, Fractions, Solving Equations with Fractions</td>
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<td></td>
<td>Module 3</td>
<td>Ratios, Proportions, Decimals</td>
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<td></td>
<td>Module 4</td>
<td>Square Roots, Perimeter, Circumference, Area, Volume, Pythagorean Theorem</td>
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<td>MS 1023</td>
<td>Module 5</td>
<td>Algebraic Expressions, Linear Equations in One Variable, Percents, Formulas, Applications</td>
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<td></td>
<td>Module 6</td>
<td>Linear Inequalities, Scientific Notation, Basics of Polynomials</td>
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<td></td>
<td>Module 7</td>
<td>Exponents, Operations with Polynomials, FOIL method, Special Products</td>
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<td></td>
<td>Module 8</td>
<td>Factoring Polynomials, Solving Quadratic Equations by Factoring</td>
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<tr>
<td>MS 1123</td>
<td>Module 9</td>
<td>Linear Equations in Two Variables, Linear Inequalities in Two Variables, Absolute Value Equations and Inequalities, Functions</td>
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<td>Module 10</td>
<td>Rational Expressions, Complex Fractions, Rational Equations</td>
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<td></td>
<td>Module 11</td>
<td>Radicals, Rational Exponents, Radical Equations, Complex Numbers, Square Root Method, Completing the Square, Quadratic Formula</td>
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<td></td>
<td>Module 12</td>
<td>Systems of Linear Equations, Linear Inequalities in Two Variables</td>
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</table>
Method of Evaluating and Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLS Lessons</td>
<td>40%</td>
<td>A&gt;90-100</td>
</tr>
<tr>
<td>Cumulative Tests</td>
<td>40%</td>
<td>B&gt;80-90</td>
</tr>
<tr>
<td>Notebook</td>
<td>10%</td>
<td>C&gt;70-79</td>
</tr>
<tr>
<td>Final Exam</td>
<td>10%</td>
<td>D&gt;60-69</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>F&gt;Below 60</td>
</tr>
</tbody>
</table>

Course Overview

Students move through a series of 12 sequential content modules using a mastery learning approach and making extensive use of computer software for content delivery, practice of skills, graded homework, and cumulative tests. Personalized support is also readily available from the instructor and/or an instructional assistant, both during scheduled classes and in Open Lab time. During class time, the instructor circulates throughout the room to discuss each student’s progress, answer questions, and clarify concepts, as needed, while students practice math skills on the computer or review test results. In many classes, an instructional assistant is also available to provide individual assistance. Graded assignments, as well as pre-tests, diagnostic tests and cumulative tests, must be done without any assistance.

Each module begins with an optional diagnostic test to assess the student’s current level of mastery of the module’s content. Students who score 80% or higher on the questions from a specific lesson will receive credit for that lesson, and may continue directly to the lesson for which they did not score 80% or higher. Students who score below 80% on the questions from a specific lesson must complete notebook activities and computer assignments for that lesson, with 80% mastery or higher on each graded activity. After every 5-8 completed lessons, students will take a cumulative test covering material from those lessons. Students must score 70% or higher on a cumulative test in order to advance to the next group of lessons. Once the student has completed all the required assignments and tests for all the lessons and modules in each course, he or she will take a cumulative final exam covering all material from all the lessons and modules of the course. Students must score 70% or higher on the final exam in order to move to the next course in the sequence.

Computer-Guided Lessons

On the first day of the course, students will take a Pre-Test to assess their skill level in the course. If a student scores 70% or better on the Pre-Test, that student will be given credit for the course and allowed to move into the next course in the sequence. Students who make below 70% on the Pre-Test must complete all the required assignments and tests before moving to the next course in the sequence.

Next, students will take a modular Diagnostic Test, which contains questions from each lesson in the module. Students who score 80% or better on the questions from a specific lesson on the Diagnostic Test will automatically receive full credit (100%) for that lesson. Any lessons not automatically credited must be completed as follows:

For each section within a module, the student takes notes in a required notebook while reading the section in the textbook and working through the Learn portion of the Hawkes Learning Systems (HLS) software.
Then the student uses the Practice mode of HLS to develop skills and prepare for the graded portion of the homework that is called Certify. Many supportive features are available in Practice (e.g., hints to get started, immediate feedback, worked-out solutions, etc.). The student may choose to continue practicing as long as necessary to master the material. Different examples of the same question types are generated each time a new set of practice questions is requested, providing great variety to support optimal learning. Students must score 80% or higher on the Pre-Certify level of Practice in order to attempt to Certify for a lesson.

When the student scores 80% or better on Pre-Certify level of Practice correctly without assistance, he/she must complete Certify to receive credit for the lesson. Certify is similar to Practice, with the main difference being that none of the support features are available to students in Certify mode. Students who score 80% or better on Certify will receive full credit (100%) for the lesson and will then be allowed to move to the next lesson/test/module.

The Cumulative Test is taken after all sections have been completed successfully. Students must score 70% or better on a Cumulative Test before they are able to move on to the next lesson/module. There is no penalty for repeating assignments or tests multiple times in order to achieve mastery. If a cumulative test is not passed on the 1st or 2nd attempt, the student must meet with the instructor to work out a plan for preparing for any further attempt(s) before taking the Cumulative Test again. Cumulative Tests may only be taken in the math lab during your regular class time. If you take it without your instructor’s monitoring you, expect to be asked to re-take it no matter what you score on it. The cumulative test will be closed book/notebook. Before taking the cumulative test, you must give your notebook to your instructor. Your instructor will check your notebook and return it to you when you finish the cumulative test. Again, you must submit your notebook EVERY time you take a Cumulative Test or take the Final Exam or you will not be allowed to take the test.

After all modules and review materials have been completed, the student takes the cumulative Final Exam. Students must score 70% or higher on the Final Exam in order to keep a pass the course and move to the next course in the sequence. As with the cumulative tests, a student may take the final exam as many times as needed until he/she receives a passing score. The Final Exam may only be taken in the math lab during your regular class time. If you take it without your instructor’s monitoring you, expect to be asked to re-take it no matter what you score on it. The final exam will be closed book/notebook. Before taking the final, you must notify your instructor and give them your notebook. Your instructor will check your notebook and return it to you when you finish the final exam.
**Student Notebook**

Each student will be required to have a three ring binder for all class materials and class work. This notebook should include presentation notes and problems you have worked, including those for quizzes and exams. Student notebooks will be collected prior to each cumulative exam. To set up notebook:

- Begin each day on a new page of your notebook and date it in the top right corner.
- You should make a note for the days you are absent from class explaining why you could not attend.
- Write the lesson number and objective you will be working on at the top of each page and then label appropriately: DIAGNOSTIC TEST (DT); PRE-TEST (PT); HLS LEARN (LEARN); HLS PRACTICE (PRACTICE); HLS CERTIFY (CERTIFY); CUMULATIVE TEST (CT). Show all notes taken or problems worked under each section and number your problems.
- Make sure you maintain your notebook in a neat and orderly fashion. “Scratch work” is not a neat and orderly way of keeping a notebook. The instructor needs to be able to see where you are making your mistakes to be able to help you better.

***Record all grades on your LESSON ORDER SHEET attached to the back of the course syllabus.***

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**Required One Hour Lab Time**

Each student is required to attend the math lab for one hour outside of his/her normally scheduled classroom hours. Students who fail to attend the required one-hour lab will receive a half absence for each missed session. The instructor may assign extra time on task, either in the lab or from a remote location, for students who are behind pace. The instructor will regularly check the student’s progress against time on task.

**Open Classroom/Extra Classroom Time**

You are encouraged to attend the math lab outside of your normal class hours. A schedule indicating when the lab is open will be posted. You must bring your student I.D. and must sign the login sheet. Students may also use the Hawkes Learning System when other classes are in session if there are available classroom stations. Students must ask permission from the instructor to use an available station. The instructor has the discretion whether or not to allow the student to use the Hawkes Learning System during his/her class. Additionally, an instructor may tutor students that are not in his/her regular class, but will give preference to students enrolled during that time slot.

**Instructional Methods and Minimum Requirement**

This will be a computer-based learning classroom using Hawkes Learning Systems. Students are expected to complete at least 2-3 lessons per week, not including cumulative tests. Completing a lesson means testing out of a lesson, or lessons, as a result of the diagnostic test or showing mastery on that lesson’s Certify with a grade of at least 80%.

**Early Assessment Measure**

During the first week of class, students’ averages based on progress and grades will be assessed. Those in danger of making below a 70% for the class, or who have fallen behind the recommended pace of the course, will be notified concerning remediation.
**Intervention based on Early Assessment Outcome**

For students in danger of making below a 70% in the class, or who are significantly behind the recommended pace of the course, they will be required to spend extra time in the lab until they catch up. If a student wants to be tutored, contact Mr. Sellers in the STAR lab. Additionally, instructors have the discretion to require tutoring for those students who have fallen behind.

**Attendance Policy**

Students will be expected to attend class at their scheduled class time, arrive on time, and to remain through the scheduled class time. If you must be absent, notify your instructor in advance if possible or within 24 hours of the absence. Place a page in your notebook stating why you were absent for that date. Students who miss class for unavoidable reasons may make up the class time missed during the open lab time. Students are responsible for staying on schedule and completing all of the objectives required for the course. Students will be warned when they become excessively absent. Excessively absent is defined as follows:

**CLASSES THAT MEET TWO DAYS PER WEEK:** 2 Absences  
**CLASSES THAT MEET FOUR DAYS PER WEEK:** 2 Absences

Students who are absent more than the number of allowed times may be dropped from the class and awarded an “EW”. Any student who withdraws from the course or receive an EW will have to start the course from the beginning. The allowed times are:

**CLASSES THAT MEET TWO DAYS PER WEEK:** 4 Absences  
**CLASSES THAT MEET FOUR DAYS PER WEEK:** 4 Absences

**Completion of Two or More Classes**

Students completing two or more courses within one term will not be charged an extra fee, but will have to pay tuition for the additional course completed up to a total of 15 credit hours. If a student is already enrolled in 15 credit hours he/she will not be required to pay tuition for the additional course completed.

**Academic Honesty**

Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Plagiarism can be defined as unintentionally or deliberately using another person’s writing or ideas as though they are one’s own. Plagiarism includes, but is not limited to, copying another individual’s work and taking credit for it, paraphrasing information from a source without proper documentation, mixing one’s own words with those of another author without attribution, and buying or downloading a paper from the Internet. The penalty for academic dishonesty in this course is a “0” for the assignment with notification of the infraction to the Dean of Instruction. A second instance of academic dishonesty will result in a failing grade for the course and may also result in disciplinary sanctions including probation or suspension from the college.
Classroom Behavior
Electronic devices, such as cell phones and pagers, are not permitted and must be turned off during class. Violation of these policies may result in disciplinary action. Additionally, students are not permitted to bring food or drink into classrooms or to bring children to class.

Campus Support Services
Phillips Community College/UA provides student support services that assist students in achieving their educational objective. Those services include advising, financial aid, counseling and guidance, and safety and security.

ADA Policy
Scott Post is the Vice Chancellor for Student Services and serves as the ADA Compliance Officer. If you have a disability, please contact the Student Disabilities Coordinator for your campus.
DeWitt-Phyllis Fullerton (870) 946-3506 ext. 1610
Helena-George White (870) 338-6474 ext. 1135
Stuttgart-Terry Simpson (870) 673-4201 ext. 1809
The process of student referral under the Americans with Disabilities Act can be found in the Student Handbook.

FERPA Policy:
Phillips Community College of the University of Arkansas complies with the Family Educational Rights and Privacy Act (FERPA) of 1974. A student has the right to inspect and review all of his/her records that meet the definition of educational records. No third party has the right to review student records without the student’s permission, with very limited exceptions. For more information contact the Registrar’s Office.

Insurance
Phillips Community College of the University of Arkansas does not provide insurance for its students. The college does encourage each student to secure his/her own insurance, and for that reason, the college has contacted an insurance agency to assist any student with individual student insurance coverage. Forms for this insurance are available in the Registrar’s office.

ACTS
The Arkansas Course Transfer System (ACTS) contains information about the transferability of courses within Arkansas Public Colleges and universities. Students are guaranteed the transfer of applicable credits and the equitable treatment in the application of credits for the admission and degree requirements. Course transferability is not guaranteed for courses listed in ACTS as “No Comparable Course.” Additionally, courses with a “D” frequently do not transfer, and institutional policies may vary. ACTS may be accessed on the Internet by going to the ADHE Website and selecting Course Transfer. http://www.adhe.edu/ then click on “Arkansas Course Transfer System”
Disclaimer
This syllabus represents a proposed plan to execute the above policies and objectives according to the included school and class calendar. However, under certain circumstances (e.g., bad weather, mechanical problems in the facilities, etc.) changes may be required.

Rules and Regulations for Math Lab

- No food or drinks will be allowed in the lab.
- No earphones or Bluetooth devices
- No talking to other students or doing other distracting noises or gestures.
- Hand-held calculators are allowed, and may be checked out while in the math lab. Fundamental students may use them only during certain modules.
- You may not access websites from the lab computers or your phones. Violation of this rule will be considered “cheating”.
- You may not receive help from another student or bring another student’s notebook into the lab. Violation of this rule will be considered “cheating”.
- No cell phones, pagers, or iPads! You may not use the calculator feature on your cell phone or iPad. Any visible or audible cell phone, pager or iPad will be taken up and placed in the instructor’s drawer until class is over.
- Be on time and do not leave early
  Students who come to class five or more minutes late will be counted as tardy “T”.
  Students who leave ten or more minutes before the class officially ends will receive an “E” for the day.
  A combination of two T’s or E’s will be counted as an absence.
- Students must attend class at the time which they are enrolled unless prior approval is made with their instructors. In addition to attending your regular class time, students may come at other times if computers are available in the lab.
- Students must complete at least three (3) lessons per week to successfully complete one or more courses within a given semester.
- Spiral notebooks are NOT ALLOWED on students’ stations.
- Place backpacks on the table as you enter the lab.
- ID Cards are required when working outside of your regularly scheduled class time.
- Notebooks should be turned in prior to taking cumulative tests.

For PCCUA Discipline policy, visit:
http://www.pccua.edu/pdf%20files/PCCUA%20STUDENT%20DISCIPLINE.pdf