

## **MATH 28 DEVELOPMENTAL MATHEMATICS II**

3 Credits

MWF 1:00 PM – 2:15 PM

<b>INSTRUCTOR:</b>	<b>Kevin A. Takayama, Lecturer, Mathematics</b>		
<b>OFFICE:</b>	<b>Hale Mana‘opono 110A</b>		
<b>OFFICE HOURS:</b>	<b>M-F 10:00 AM – 11:00 AM; or by appointment.</b>		
<b>TELEPHONE:</b>	<b>236-9281</b>	<b>EMAIL:</b>	<b>ktakayam@hawaii.edu</b>
<b>EFFECTIVE DATE:</b>	<b>Spring 2015</b>		

### **WINDWARD COMMUNITY COLLEGE MISSION STATEMENT**

*Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai‘i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O‘ahu’s Ko‘olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.*

### **CATALOG DESCRIPTION**

This course is a continuation of Developmental Mathematics I and a preparation for students to take Math 100, Math 101 or Philosophy 110 to fulfill the Symbolic Reasoning requirement. Topics include an introduction to Real Numbers (including basic roots, signed numbers and properties), Linear equations and inequalities in one variable, linear equations and inequalities in two variables, and selected topics – Quadratic Formula, parabola, systems of equations and inequalities, scientific notation, and variation.

*Pre-Requisite(s): Grade of “C” or better in MATH 19, MATH 21, MATH 21B, MATH 22, or MATH 24 or equivalent; satisfactory math placement test score or consent of instructor.*

#### **Activities Required at Scheduled Times Other Than Class Times**

This class is supported by the Supplemental Instruction (SI) program. SI is a FREE, collaborative, peer-study program that helps students succeed in difficult classes. Your SI Leader, Michele Osurman, is a peer who has taken this class (or a higher level class) previously and has an understanding of the course material. In SI sessions, students will work together with Michele Osurman to explore important concepts, review class notes, discuss reading assignments, and review for tests. All students in this class are encouraged to attend!

Note: WCC data has shown that students who attend SI sessions are 20% more likely to receive A, B, or C grades than non-attendees and are less likely to withdraw from their courses. This data has also shown that the more sessions students attend, the more likely they are to pass.

## STUDENT LEARNING OUTCOMES

The student learning outcomes for the course are:

1. Demonstrate proficiency in the skills and competencies for this level of mathematics.
2. Apply concepts and principles to solve applied problems related to the topics covered in this course.
3. Utilize precise mathematical language and symbols in written and oral forms.

## COURSE CONTENT

### *Concepts or Topics*

- **Real Numbers** – including basic roots, signed numbers and properties.
- **Algebraic Expressions** – including geometric formulas.
- **Linear Equations and Inequalities in One Variable**
- **Linear Equations and Inequalities in Two Variables**
- **Selected Topics** – including Quadratic Formula, Parabola, Systems of Equations and Inequalities, Scientific Notation, and Variation.

### *Skills or Competencies/Responsibilities of Students. Success in this course will be enhanced by:*

1. a positive, inquiring attitude towards learning mathematics;
2. setting aside adequate time for studying and working of problems;
3. reading the text carefully and making use of other learning materials whenever necessary;
4. seeking assistance from the instructor and the Math Lab personnel whenever necessary;
5. completing assignments by the designated date;
6. regular class attendance, participation and maintaining accurate class notes.

## COURSE TASKS

The mode of instruction is primarily discussion-problem solving where the initial portion of each class period may be utilized to discuss and clarify any questions from the preceding class meeting and/or assignment, and the remaining portion is used to discuss new material. Lectures, directed student explorations, group work, appropriate technologies, and projects will also be used as appropriate. After the completion of each unit, a review and an exam will be conducted.

## ASSESSMENT TASKS AND GRADING

The student will demonstrate competency in the objectives by participating in and completing all class activities, by completing and turning in all assignments as requested, by taking unit tests, and by taking a final exam over concepts and skill covered in the entire course. Class activities, unit tests, and the final exam are to be taken in the classroom and without any references unless otherwise stipulated by the instructor.

It is the student's responsibility to obtain and complete all assignments that are given in any class meeting for which the student is unable to attend. Unless permission is granted by the instructor beforehand, assignments and tests must be completed and submitted to the instructor at the specified date and time.

Points will be assigned to each graded assignment, class activity, and tests as follows:

1. **Homework.** Homework sets will be graded on a 0 - 10 point scale. Assignments are to be turned in at the designated date. *Late homework will not be accepted.*
2. **Weekly Quiz.** Weekly quizzes will be graded on a 0 - 5 point scale and will take place at the last meeting of every week. There is no make-up for a missed weekly quiz. Students must be present in class to participate.
3. **Module Tests.** The four module tests are given in class at the end of each module. A module test will be approximately 75 minutes in length. The student must achieve a minimum of 70% of the possible points for each module test. Without this minimum requirement, a passing grade for the course is not possible.

**Practice Tests.** At least a day before each module test you will be assigned a practice test as preparation. This practice test must be fully completed on the day of the module test in order to take the test.

**Retests.** One retest is allowed without penalty for each module test if it is done by the specified retest deadline. The better of the two test scores will count towards your grade. No retests will be given after the module retest deadline. Retests are arranged by appointments with your instructor.

To take a retest, all of the following must be met:

- a) All problems from the chapter test in the book must be completed and turned in to the instructor.
- b) The student must meet with the instructor to review mistakes made on the first form of the test taken.
- c) Additional math activities as designated by the instructor must be completed.
- d) The retest must be taken by the designated module retest deadline.

4. **Final Exam.** The final exam will cover the concepts and skills in the entire course. The final exam is two hours in length and will be scored on a 200-point scale. The student must achieve a minimum of 60% of the possible points for the final exam. Without this minimum requirement, a passing grade for the course is not possible.

Retesting for the final exam is available if the 60% minimum is not met and the 70% minimum per chapter test was met. In that event, a retest of the final exam is possible, however, the maximum score of the retest is 60% of the possible points for the final exam.

**Make-up.** Make-up opportunity for a module test or final exam will be possible only upon a timely presentation of a serious and justified explanation of the student's absence from the class test. The instructor has the right to request documentation of the student's absence from the class and to determine if the absence from the class test is justified. A make-up test must be taken within one week of the in-class test unless otherwise specified by the instructor. No more than one test may be taken by a student on a make-up basis.

**Course grade.** If the student has achieved a minimum of 70% of the possible points for each unit test and a minimum of 60% of the possible points for the final exam, then a letter grade for the course will be assigned according to the level of achievement as provided in the table below:

GRADE	DEFINITION
A	90% - 100% of the total possible points
B	80% - 89% of the total possible points
C	70% - 79% of the total possible points
Cr	70% - 100% of the total possible points
NC	Less than 70% of the total possible points
D	60% - 69% of the total possible points
F	Less than 60% of the total possible points

Note: Students must apply for the Cr/NC grading option at the Admissions Office. Consult the WCC Catalog for deadlines.

Note: W grade is given only when the student officially withdraws from the course at the Admissions Office. Consult the WCC Catalog for deadlines.

## LEARNING RESOURCES

**Required Text:** Beginning Algebra, 11th edition, by Lial, Hornsby and McGinnis.  
The Student Solution Manual, MyWorkBook and the MATHXL Access Code are optional.

TRiO Computer Lab and other activities as needed.  
The Math Center: Mana`o pono 103  
The Math Lab: La`akea 226  
UH Manoa Online Learning Academy: [manoa.hawaii.edu/ola/](http://manoa.hawaii.edu/ola/)

## Additional Information

1. **Grading on Homework, Class Activities, Weekly Quizzes, or Tests.** To receive full marks for problems done on any graded activity, you must show your work neatly and completely as well as provide clear written explanations when it is asked for. Partial credit may be awarded.

2. **Absences.** It is your responsibility to attend every class meeting. Even if you are absent, you are responsible for those topics and examples covered in class that you missed. Furthermore, you are responsible for obtaining any important announcements and assignments given during the class you missed. If you are absent frequently or for an extended period of time, contact the instructor as soon as possible to discuss your situation. Absences and tardiness to class will have a negative impact on your success and overall grade in this course. You are allowed 3 absences without consequence. **If you are absent 4 times, your overall grade will drop by 10%, one letter grade.** You will be deducted 10% of your overall grade for every 4 absences thereafter. You are considered tardy if you come to class between 5-20 minutes after class has started. **Two tardy attendances are worth 1 absence.**

3. **Homework.** For each module, as you read through each section, it is recommended that you write down the words, phrase or math symbols and their meanings, formulas, and properties/rules that are important for each section. It is important for you to know these.

After reading through each section carefully, try the suggested odd numbered problems in each section. The answers to the odd numbered problems are available at the back of the textbook. Do as many as you feel is necessary to help you learn and understand the material and become

comfortable with the concepts and/or properties. If you have difficulty solving problems in the section, review the material in the text and your class notes. Many examples are solved. Review the solutions to these problems. If, after checking these sources and trying to find your mistakes, you are still unable to solve a problem correctly, make a note of the exercise number so that you can ask someone for help with that problem.

Mathematics is not a spectator sport. To succeed in mathematics, you must do problems. It is often necessary to practice a skill more than the instructor requires. For example, a textbook may provide 50 practice problems in a section and the instructor may assign only 25 of them. However, some students may need to do 30, 40, or all problems. If you are an accomplished athlete, musician, or dancer, you know that long hours of practice are necessary to acquire a skill. Do not cheat yourself of the practice you need to develop skills taught in this course.

4. **Laulima.** The syllabus, course calendar, homework schedule, grades, etc. are all viewable through Laulima. Check Laulima regularly to stay up to date.

5. **Calculators.** Calculator use is not allowed in class and on tests and exams.

6. **Communication.** It is your responsibility to stay in communication with the instructor. If you will be unable to make it to class for any reason, please inform your instructor so it may be determined if the absence is excused. The instructor may need to contact you throughout the semester and will do so via email. It is your responsibility to check your student email on a regular basis.

### **DISABILITIES ACCOMMODATION STATEMENT**

*If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, [lemke@hawaii.edu](mailto:lemke@hawaii.edu), or you may stop by Hale 'Akoakoa 213 for more information.*

Revised May 25, 2011