

## Course Syllabus (Spring 2014 Semester)

### Math 28 — Developmental Mathematics II (3 Credits)

INSTRUCTOR: Navtej (Johnny) Singh

E-MAIL: [navtej@hawaii.edu](mailto:navtej@hawaii.edu) <Reference Your Name and Class Information When E-mailing>

OFFICE: Manaopono 110

OFFICE HOURS: M W 7:30a – 8:30a, 11:15a – 11:45a; T 12:30p – 1p, 2:15p – 2:45p; and by appointment.

TELEPHONE: (808) 236 – 9278 <Use this during office hours for instant communication>

CRN	Course ID for MML	Class Meeting	Days	Classroom
60230	singh49923	8:30am – 9:45am	M W F*	Manaopono 103

\*Note that Friday time slot is designated for mandatory SI

### 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 and Course Content

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) and algebraic expressions (including geometric formulas), 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-requisites: Grade of "C" or better in MATH 19, MATH 22 or MATH 24 or equivalent; satisfactory math placement test score, or consent of instructor.

### General Course Structure

This is a **non-traditional / non-lecture** based Math course that uses computer software and customized study plan for each student. If you learn Math best through lecture based course then I recommend that you take appropriate level course in our traditional track. The course begins with review material that is essential to be successful in this class. Next step for students in this class is to take a diagnostic test and work on the area where they are weak through custom online review. In this self-pace course, students meet individually with the instructor to develop their course plan. The course material is divided into four modules. Students begin each module by working on selected guided study workbook problems after watching short lecture videos on the module to get ready for the Pre-Test. Then students take a Pre-Test to determine their areas of mastery and areas that need to improve within each module of the course, which is accomplished through web based homework. After completing required web based homework, student will take the Post-Test to move on to next

module. Typical class period consists of instructor's one-on-one with each student to check student progress and to provide help. Meanwhile, students work on customized homework and receive assistance from Supplemental Instruction (SI) Leader. During the Supplemental Instruction Session, students work on the assigned guided study workbook material with help from the SI.

- ❖ Upon completion of this course, the student may decide to continue in the next sequential course if it is within the allowable deadline, or choose to wait until the start of the next semester to enroll in another math course. If the student chooses to wait until the next semester to enroll in another math course, then the student is released from the completed class.
- ❖ If you cannot finish this course by the end of the term, you may re-register for this course the following semester and continue your work from last module completed, assuming the transition time is less than or equal to a month. You will receive credit for attendance, completed workbook material, and passed modules. You can discuss this option further with me for more detail.

**Learning Resources and Materials**

WCC combined custom textbook for this course is “Developmental Mathematics, Basic Mathematics and Algebra”, 2<sup>nd</sup> edition by Lial, Hornsby, McGinnis, Salzman, Hestwood. You will need to purchase a package from the WCC bookstore that will contains the following material: a valid access code for MyMathLab (MML), Guided Study Workbook, and a binder with dividers. Access to e-textbook is available at MML website. If you are continuing from Math 19 or previously taken Math 28, your access code may still work. So you only need to purchase part of the material. I recommend that you sign up for MyMathLab using the 17 day-trial period first and use the access code after first week of classes. This will allow you to find out if this course is right for you without wasting money. For reference, a copy of the textbook will be available for use in class, math center, and math lab inside the library. A reliable computer with home internet access and a headphone is also required.

**Course Level 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 language and symbols in written and oral forms.
- All SLOs assessments are embedded in class activities, homework, quizzes, or exams.

**Point Distribution and Grades**

**Grading Categories**

Class Participation	05%
Homework	10%
Portfolio	10%
Pre/Post-Tests	50%
Final Exam	20%

**Grading Scale**

A	90% or Higher
B	80% - 89.9%
C	70% - 79.9%
D	60% - 69.9%
F	Below 60%

Other grade options: CR - Credit, NC – No Credit, W - Withdrawn, I - Incomplete, and N grade.

If a student signs up for CR/NC option, a grade of C or higher is considered CR and grade of D or F is considered NC. A student will automatically receive a W grade by dropping the course within certain time line indicated in the system schedule. An Incomplete (I) grade is given when a student fails to complete a small portion of the course due to circumstances beyond his/her control.

The N grade indicates that the student has worked conscientiously, attended regularly, finished all work, fulfilled course responsibilities, and has made measurable progress. However, either the student has not achieved the minimal student learning objectives and is not yet prepared to succeed at the next level, or the student has made consistent progress in the class but is unable to complete the class due to extenuating circumstances, such as major health, personal or family emergencies. If you would like to request for N grade, complete the N grade request form (ask instructor for the copy) no later than the time of final examination addressing how you meet the criteria for N grade. You must hand me this form in person unless prior arrangements are made. Then I will make a decision on whether you qualify for the N grade.

### **Homework**

Based on the assessment results of the module Pre-Test, the students will work on customized MML homework for each of the four modules. Since all homework assignments are computer based, students must show appropriate step by step work leading to correct solution on paper that will be filed in student portfolio. Students are expected to complete assigned work in timely manner and get help as early as possible. It is recommended that students do part of the homework that they understand outside of the class and utilize the class time to work on challenging problems with assistance from the SI and instructor.

### **Portfolio**

Your portfolio will be a cumulative collection of all the work you do in this class, which serves as a physical representation of your effort. The first thing to include in your portfolio is a copy of the syllabus and schedule. One major section of your portfolio should include neatly handwritten work of your MML homework. Since MML does not require you to show your work, written work will serve as a great reference when you study for exams. It will also help me monitor your progress throughout the semester and check to make sure you know how to properly show your logic for solving a math problem. Another major portion of your portfolio should include notes taken while studying for each module and written assigned work from guided study workbook. Written work from Skills Test Review Sheet should also be included in this portfolio. Any additional material that you feel demonstrates what you learn in the class may also be included. Please file everything in an orderly manner. You will be required to show me your portfolio once a week so I can check on your progress and provide feedback. Your Portfolio is due at the time you take your Exit Exam and will account for 10% of your overall grades. Portfolio grading will be based on content, quality and organization. For grading information a Portfolio Assessment Sheet is included in this syllabus.

<b>Portfolio Assessment Rubrics: - The Math Portfolio will be graded in the following way:</b>		
<b>Categories</b>	<b>Weight</b>	<b>Detail Information on Percent Deduction</b>
Initial Documents	10%	Make sure to include the following items:-Syllabus (2%), Completed Schedule Sheet (2%), & Valid Time Log Sheet (6%)
Workbook Material	40%	1% will be deducted for each incomplete section of each module in the workbook
Written MyMathLab Work	40%	1% will be deducted for not showing work for each online-homework (except credited homework)
Organization/Neatness	10%	To get full credit for this portion make sure that I can easily ready your work and find the necessary material in your portfolio without struggle

<b>Tab # - Label</b>	<b>What to include under this category</b>
Tab 1 – Main	Syllabus, Log Sheet, Schedule, Handouts, PRST Review, & Final Review
Tab 2 - Module 5	Workbook Material and Written Work for Web Homework from Module 5
Tab 3 – Module 6	Workbook Material and Written Work for Web Homework from Module 6
Tab 4 - Module 7	Workbook Material and Written Work for Web Homework from Module 7
Tab 5 – Module 8	Workbook Material and Written Work for Web Homework from Module 8

### Exams

Upon completing an appropriate Guided Study Workbook sections and watching necessary lecture videos, the student will take a Pre-Test for each of four modules. If the student achieves a minimum of 70% of the possible points for the Pre-Test and complete all required online homework, the student may opt to move on to the next module. Upon completing the coursework for a module, the student takes the module's Post-Test and needs to score a minimum of 70% of the possible points. Once the student has achieved a minimum of 70% of the possible points for each module on either the Pre- or Post-Test, the student will take an Exit Exam for the course. The student must score a minimum of 60% of the possible points on the course Exit Exam to pass the class. Note that all Pre/Post- tests as well as the Exit Exams must be taken in supervised environment without any references unless otherwise stipulated by the Instructor. Students may be required to go to The Testing Center (TTC), located in the library, for assessments. Do not wait till the last minute to take your test since many things can go wrong (i.e. long waiting line at the testing center, software glitch, or power outage). Information on the TTC and hours of operation can be found on [http://windward.hawaii.edu/testing\\_center](http://windward.hawaii.edu/testing_center). You can also take the tests at the Math Center (Manaopnon 103) during certain time. Testing hours will be posted on the door. Calculators are not permitted on any tests.

<b>Basic Rubrics for Grading Multistep and Word Problems for Exit Exam</b>	
Full Credit	<ul style="list-style-type: none"> <li>- Shows complete understanding of a problem's mathematical concepts and procedures</li> <li>- Performs algorithms correctly using appropriate notation and precise mathematical language</li> <li>- Gives an elaborate and effective explanation of the solution process in an organized way</li> </ul>
Partial Credit	<ul style="list-style-type: none"> <li>- Shows near understanding of the problem's mathematical concepts and procedures</li> <li>- Using appropriate notation, performs algorithms completely that may contain minor errors.</li> <li>- Identifies most relevant information and shows a general understanding</li> <li>- selects an appropriate strategy for solving the problem</li> <li>- Shows effective explanation and some evidence of a systematic solution process</li> </ul>

Very Little Credit	<ul style="list-style-type: none"> <li>- Shows some understanding of a problem's mathematical concepts and procedures</li> <li>- Performs algorithms that may contain major computational errors</li> <li>- Identifies some relevant information and shows limited understanding</li> <li>- Shows little evidence of a solution process or use of appropriate mathematical language</li> <li>- Gives some explanation of the solution process but may be vague or difficult to interpret</li> </ul>
No Credit	<ul style="list-style-type: none"> <li>- Shows no understanding of a problem's mathematical concepts and procedures</li> <li>- Identifies no relevant information, algorithmic pattern, or evidence of a solution process</li> <li>- Fail to explain significant parts of the problem or omit it altogether</li> </ul>

### **Class Participation and Attendance**

To earn class participation points, the student must be present in the class for the duration of the entire class period. A student must also be consistently working and progressing on assigned tasks during each class session. A student may be required to attend SI sessions outside of the class time upon request from Instructor. Attendance is mandatory in this class to ensure that students spend sufficient amount of time on tasks and receive on-demand assistance. More than one week (3 MWF classes or 2 TTR classes) of unexcused absence in regular semester or one day of unexcused absence in six week summer classes may result in failing grades in this course. Proof is required for an excused absence. To create a comfortable learning environment in the classroom, all students are expected to come to class on time with positive attitude and respect everyone that is present in the classroom. Students are not allowed to leave the class during the session without the Instructor's approval because it is considered a sign of disrespect to everyone attending the class. As a courtesy to your classmates, please turn off your cell phones and do not distract them from doing their work. If you have trouble understanding a concept or problem, ask for help by raising your hand. If you are absent from the class, it is your responsibility to check on announcements made while you were absent. If you stop attending this class for any reason, it is your responsibility to drop it.

### **Additional Activities Outside of Class Time**

To stay on schedule, students are expected to complete part of the assigned guided study workbook material and MML homework outside of class time, either in a computer lab or at home. In addition, students are expected to take their tests either at the testing center or math center. The SI session is embedded into Monday-Wednesday-Friday class schedule but for Tuesday-Thursdays classes, the SI session will be during designated time outside of class. Students are expected to attend the SI sessions. If the SI hours do not fit your schedule, you may substitute Trio or Math Lab hours with instructor's consent.

### **Math Help Outside of Class**

To get additional help on class assignments, I encourage you to use the Math Center located in Manaopono 113. You do not have to make an appointment to use this resource. In addition to visit my office hours, You can walk in to Math Lab (Located in the Library room 226) during hours of operation posted on the door and ask for help or visit TRiO tutors. There is also free online 24 hours live tutoring available through via myuh.hawaii.edu known as Brainfuse. You can also access live local tutors online at <http://manoa.hawaii.edu/ola/>. I also encourage you to form a small study group with students from your class. There are many useful websites such as <https://www.khanacademy.org/> devoted to helping students in Math. I would be happy to assist you in locating the sites that will fit your needs.

## Disabilities

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 (808) 235-7448, [lemke@hawaii.edu](mailto:lemke@hawaii.edu), or you may stop by Hale 'Akoakoa 213 for more information.

## Academic Dishonesty

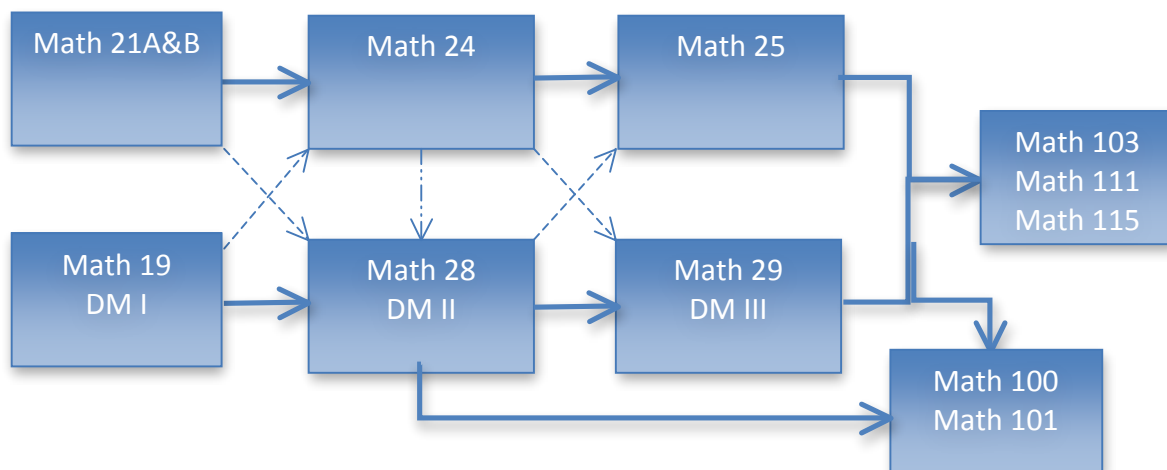
Plagiarism and use of another's work without proper acknowledgment is not permitted. A student caught cheating, may receive a failing grade for the course. All students are required to follow the Student Conduct Policies described at [http://www.wcc.hawaii.edu/Policies/5\\_3\\_Student\\_Conduct.php](http://www.wcc.hawaii.edu/Policies/5_3_Student_Conduct.php).

## Remarks

Please check your WCC e-mail account frequently for important announcements. Note that this syllabus is subject to change in extenuating circumstances. When communicating via e-mail or leaving voice message for me, please include your name, course and contact information so that I can easily identify you and get back to you in a timely manner. Make up work will only be allowed upon showing proof of excused absence. For additional academic information, refer to WCC website [www.windward.hawaii.edu](http://www.windward.hawaii.edu) or go to [www.hawaii.edu](http://www.hawaii.edu) for system wide information.

## WCC Course Structure

Below is a diagram that may be helpful in determining which course is right for you:



## Course Content – Modules

<b>Module #5: Introduction to Real Numbers (including basic roots, signed numbers and properties) and Algebraic Expressions (including Geometric formulas)</b>	
<ul style="list-style-type: none"> <li>a. Classify numbers and graph them on a number line</li> <li>b. Order relations</li> <li>c. Find the opposite and absolute value of real numbers</li> <li>d. Add real numbers</li> <li>e. Subtract real numbers</li> <li>f. Multiply and divide real numbers; order of operations</li> </ul>	<ul style="list-style-type: none"> <li>g. Properties of real numbers</li> <li>h. Simplifying expressions</li> <li>i. Find the perimeter and area of polygons (rectangle, square, parallelogram, trapezoid and triangles) and composite figures</li> <li>j. Find circumference and area of circles</li> <li>k. Find volume and surface area</li> <li>l. Square roots and the Pythagorean Theorem</li> </ul>
<b>Module #6: Linear Equations and Inequalities in One Variable</b>	
<ul style="list-style-type: none"> <li>a. Addition Property of Equality and applications</li> <li>b. Multiplication Property of Equality and applications</li> <li>c. More on Solving Linear Equations</li> </ul>	<ul style="list-style-type: none"> <li>d. Applications of Linear Equations</li> <li>e. Formulas and Additional Applications from Geometry</li> <li>f. Solving Linear Inequalities</li> </ul>
<b>Module #7: Linear Equations and Inequalities in two Variables</b>	
<ul style="list-style-type: none"> <li>a. Interpret graphs</li> <li>b. Solutions of Linear Equations; intercepts</li> <li>c. Plot ordered pairs</li> <li>d. Graph linear equations in two variables; intercepts</li> </ul>	<ul style="list-style-type: none"> <li>e. Slope of a line</li> <li>f. Equations of lines</li> <li>g. Graph linear inequalities in two variables</li> </ul>
<b>Module #8: Selected Topics - Quadratic Formula, Parabola, Systems of Equations and Inequalities, Scientific Notation, and Variation</b>	
<ul style="list-style-type: none"> <li>a. Scientific notation and applications</li> <li>b. Solving system of equations by graphing</li> <li>c. Solve system of equations by substitution</li> <li>d. Solve system of equations by elimination</li> <li>e. Application of Linear Systems</li> </ul>	<ul style="list-style-type: none"> <li>f. Solving system of linear inequalities</li> <li>g. Solving quadratic equations by the Quadratic Formula</li> <li>h. Graphing Quadratics equations – Parabola</li> <li>i. Variation</li> </ul>

### Guided Schedule to Complete Math 28 during Spring 2014 Semester

Week	Dates (M-F)	Assignments to Complete
1	1/13 – 1/17	Discuss Syllabus, Sign up for MyMathLab, & Go Over PRST from Workbook
2	1/20 – 1/24	Set up Portfolio, Take Diagnostic Test, & Complete Custom Web Review
3	1/27 – 1/31	Watch Lecture Videos on Mod 5 and Complete Workbook Material
4 <sup>^</sup>	2/3 – 2/7	Take Pre-Test Mod 5 and Do Custom Online HW
5	2/10 – 2/14	Finish Mod 5 Online HW and Take Post-Test 5 (Review & retake if needed)
6*	2/17 – 2/21	Watch Lecture Videos on Mod 6 and Complete Workbook Material
7	2/24 – 2/28	Take Pre-Test Mod 6 and Do Custom Online HW
8*	3/3 -3/7	Finish Mod 6 Online HW and Take Post-Test 6 (Review & retake if needed)
9	3/10 – 3/14	Watch Lecture Videos on Mod 7 and Complete Workbook Material
10	3/17 – 3/21	Take Pre-Test Mod 7 and Do Custom Online HW
11☺	3/24 – 3/28	Spring Break
12	3/31 – 4/4	Finish Mod 7 Online HW and Take Post-Test 7 (Review & retake if needed)
13	4/7 – 4/11	Watch Lecture Videos on Mod 8 and Complete Workbook Material
14*	4/14 – 4/18	Take Pre-Test Mod 8 and Do Custom Online HW
15	4/21 – 4/25	Finish Mod 8 Online HW and Take Post-Test 8 (Review & retake if needed)
16	4/28 – 5/2	Complete Makeup Work and Exit Exam Review
17	5/5 – 5/9	Consultations and Portfolio Check (Last Day of Instruction is Wednesday)
18**	5/12 – 5/15	Final's Week – All Course Work Must be done prior to taking Exit Exam

\*\*Final schedule for MWF 8:30am class is Wednesday, May 14 from 8:30am – 10:30am in this classroom.

<sup>^</sup>Drop Dates: February 3rd, 2014 – Last day to withdraw with a W grade

\*Holidays:  
 Holiday – Dr. Martin Luther King Jr. Day  
 February 17<sup>th</sup>, 2014 – President's Day  
 March 7<sup>th</sup>, 2014 – Excellence in Education Day  
 April 18<sup>th</sup>, 2014 – Good Friday



# MyMathLab

**MyMathLab** is an interactive website where you can:

- Self-test & work through practice exercises with step-by-step help to improve your math skills.
- Study more efficiently with a personalized study plan and exercises that match your book.
- Get help when YOU need it. MyMathLab includes multimedia learning aids, videos, animations, and live tutorial.

## Before You Begin:

To register for MyMathLab, you need:

- A MyMathLab student access code** (packaged with your new text, standalone at your bookstore, or available for purchase with a major credit card at [www.pearsonmylab.com](http://www.pearsonmylab.com))
- Your instructors' Course ID:** **singh49923**
- A valid email address**

## Student Registration:

- Enter [www.pearsonmylab.com](http://www.pearsonmylab.com) in your web browser.
- Under Register, click **Student**.
- Enter your **Course ID** exactly as provided by your instructor and click **Continue**. *Your course information appears on the next page. If it does not look correct, contact your instructor to verify the Course ID.*
- Sign in or follow the instructions to create an account. Use an email address that you check and, if possible, use that same email address for your username. Read and accept the License Agreement and Privacy Policy.
- Click **Access Code**. Enter your **Access Code** in the boxes and click
- **Next**. *If you do not have an access code and want to pay by credit card or PayPal, select the access level you want and follow the instructions.*

Once your registration is complete, a **Confirmation** page appears. You will also receive this information by email. Make sure you print the Confirmation page as your receipt. Remember to **write down your username and password**. You are now ready to access your resources!

## Signing In:

- Go to [www.pearsonmylab.com](http://www.pearsonmylab.com) or [www.coursecompass.com](http://www.coursecompass.com) and click **Sign in**.
- Enter your **username** and **password** and click **Sign In**.
- On the left, click the name of your course.

The first time you enter your course from your own computer and anytime you use a new computer, click the **Installation Wizard** or **Browser Check** on the Announcements page. After completing the installation process and closing the wizard, you will be on your course home page and ready to explore your MyMathLab resources!

**Contact Product Support** at <http://www.mymathlab.com/student-support> for **live CHAT, email, or phone support**.

- For video tutorial use this link: <http://tours.pearsoncmg.com/smscc/index.html>
- For technical problems call Tech Support at 800-677-6337, Monday – Friday 9am – 6pm EST.
- You can also talk to live tutor via toll free 888-777-0463, Sunday to Thursday 5pm – 12am EST.

### Time Management – Set Your Weekly Schedule

To complete this course within a semester, students are expected to complete each module in about three weeks. To achieve this goal, you will need to devote at least 10 hours per week outside of the class on math work. To manage your time well, complete the following schedule with your class time, tutoring time, SI session, work time, math study time, commute time, and leisure time. Once complete, discuss your schedule with instructor and make appropriate adjustments.

<b>Time/Day</b>	<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
7:00 AM							
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