Course Syllabus (Summer 2014 – 1st Session)

Math 29 — Developmental Mathematics III (3 Credits)

INSTRUCTOR: Navtej (Johnny) Singh
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OFFICE: Manaopono 110
OFFICE HOURS: MWF 5:20pm – 5:50pm, 7:45pm – 8:15pm, and by appointment
TELEPHONE: (808) 236 – 9278 <Use this during office hours for instant communication>

CRN	Math	MML ID	Days	Class Meeting	Classroom
61058-59-60	19-28-29	singh49923	MWF	5:50pm – 7:45pm	Manao 103

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

Math 19: This course is designed to help student review and master the basics of mathematics. Topics include an introduction to expressions and equations with whole numbers, fractions, decimals, ratios and proportions, percents, and similar triangles. Pre-Requisite(s): Grade of "C" or better in MATH 20 or equivalent, satisfactory math placement test score, or consent of instructor.

Math 28: 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.

Math 29: This course is a continuation of Developmental Mathematics II and preparation for students to take math 103. Topics include exponents and polynomials, factoring polynomials and applications, functions, rational expressions and equations, and roots and radicals (including the Square Root Property). Pre-Requisite(s) for this course is Grade of "C" or better in MATH 24 or MATH 28 or equivalent, satisfactory math placement test score, or consent of instructor.

General Course Structure

This is a non-traditional Math course that uses computer software and customized study plan for each student. The course material is divided into four modules. Students begin each module by taking a Pre-test to determine their areas of mastery and areas that need to be worked on within each module of the course. Then students will meet individually with the instructor to review the diagnostic test results and to develop their course plan. 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 Instructor (SI). During the embedded and outside of class SI session, students work on the assigned guided study workbook material with help from the SI. Students take a Post-test upon completion of required work for each module. Upon completion of this course before the semester end, the student is released from the completed class or they can start on the next course if applicable.

Learning Resources and Materials

Textbook for this course is "Developmental Mathematics, Basic Mathematics and Algebra", 2nd edition by Lial, Hornsby, McGinnis, Salzman, Hestwood. A valid access code for MyMathLab (MML) and a Guided Study Workbook is required for this course. Access to e-textbook is available at MML website. A reliable computer with home internet access is highly recommended.

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	15%
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 in this class, you must provide a formal letter of request to me no later than the time of final examination addressing how you meet the criteria for N grade. Then I will make a decision on whether you qualify for the N grade.

Assessments

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.

Participation: 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.

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.

Exams: Upon completing an appropriate Guided Study Workbook section, the student will take a Pre-test for each of four modules. If the student achieves a minimum of 80% 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 or work on the custom-designed coursework for

that module. Upon completing the coursework for a module, the student takes the module's Post-test and needs to score a minimum of 80% of the possible points. Once the student has achieved a minimum of 80% 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 70% 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 Alakai Building Room 106 for assessments. Information on the TTC and hours of operation can be found on http://windward.hawaii.edu/testing_center. Calculators are not permitted on any tests.

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 attend designated SI sessions for at least an hour per week outside of the class time. The SI session is embedded into Monday-Wednesday-Friday class schedule. For Tuesday-Thursdays, the SI session will be during designated time outside of class. If the SI hours do not fit your schedule, you may substitute Trio or Math Lab hours.

Attendance

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. You 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.

Math Help Outside of Class

There will be a Supplemental Instruction Session available during certain time based on the availability of the SI Leader. Math Lab is closed during summer session but there may be some availability of tutors through TRiO. There is also free online 24 hours live tutoring available through www.smarthinking.com via myuh.hawaii.edu (Find Smarthinking link under tool). 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 devoted to helping students in Math and I would be happy to assist you in locating the sites that will fit your needs. As always, you can come by my office during offices for help or approach me before or after class.

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.

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 your succeed in this class. Ann Lemke can be reached at (808) 235-7448, lemke@hawaii.edu, or you may stop by Hale ʻAkoakoa 213 for more information.

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 or go to www.hawaii.edu for system wide information.

Portfolio Assessment Rubrics: - The Math Portfolio will be graded in the following way:		
Categories	**Weight**	**Detail Information on Percent Deduction**
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, Pre-test, and Post-test (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

Basic Rubrics for Grading Multistep and Word Problems for Exit Exam	
Full Credit	- Shows complete understanding of a problem's mathematical concepts and procedures - Performs algorithms correctly using appropriate notation and precise mathematical language - Gives an elaborate and effective explanation of the solution process in an organized way
Partial Credit	- Shows near understanding of the problem's mathematical concepts and procedures - Using appropriate notation, performs algorithms completely that may contain minor errors. - Identifies most relevant information and shows a general understanding - selects an appropriate strategy for solving the problem - Shows effective explanation and some evidence of a systematic solution process
Very Little Credit	- Shows some understanding of a problem's mathematical concepts and procedures - Performs algorithms that may contain major computational errors - Identifies some relevant information and shows limited understanding - Shows little evidence of a solution process or use of appropriate mathematical language - Gives some explanation of the solution process but may be vague or difficult to interpret
No Credit	- Shows no understanding of a problem's mathematical concepts and procedures - Identifies no relevant information, algorithmic pattern, or evidence of a solution process - Fail to explain significant parts of the problem or omit it altogether

Important Dates

Week 1	Complete all Review Material – PRST, Diagnostic Test, Online Review Module
Week 2	Complete all 1st Module Work including the Post-Test
Week 3	Complete all 2nd Module Work including the Post-Test
Week 4	Complete all 3rd Module Work including the Post-Test
Week 5	Complete all Last Module Work including the Post-Test
Week 6	Complete Leftover Work, Final Review, and Take Final by Last Class Meeting

MyMathLab Signup

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.MyMathLab.com)
- ☑ **Your instructors' Course ID:** singh49923
- ☑ **A valid email address**

Student Registration:

- Enter www.MyMathLab.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.MyMathLab.com and click **Sign in**.
- Enter your **username** and **password** and click **Sign In**.
- On the left, click the name of your course.

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

Math 19 Course Content – Modules

Module #1:- Introduction to Expressions and Equations with Whole Numbers, and Integers	
a. Identify an exponent and a base	h. Solve equations of the form x + a = c, using the Addition Property of Equality
b. Use the rules for order of operations	i. Solve equations of the form ax = c, using the Multiplication Property of Equality
c. Evaluate algebraic expressions given values for the variables	j. Solve equations of the form ax + b = c
d. Translate phrases from words to algebraic expressions	k. Solving application problems using equations
e. Identify solutions of equations	l. Add, Subtract, Multiply, and Divide Integers
f. Translate sentences to equations	m. Order Relationships and Order of Operations with Integers
g. Distinguish between expressions and equations	
Module #2:- Fractions	
a. Write mixed numbers as fractions and vice-versa	i. Solve application problems
b. Find factors of a number	j. Add and subtract like fractions and mixed numbers
c. Use tests for divisibility	k. Find the least common multiple
d. Find prime factorizations	l. Write a fraction with an indicated denominator
e. Write fractions in lowest terms	m. Add and Subtract unlike fractions and mixed numbers
f. Determine whether two fractions are equivalent	n. Order relations and order of operations
g. Multiply fractions and mixed numbers	
h. Divide fractions and mixed numbers	
Module #3:- Decimals	
a. Read and write decimals in words	f. Multiply decimals, including applications
b. Write decimals as fractions or mixed numbers	g. Divide decimals, including applications
c. Rounding numbers and estimation	h. Order of operations with decimals
d. Round decimals to any given place	i. Write fractions as equivalent decimals
e. Add and subtract decimals, including applications	j. Order relations
Module #4:-Ratios and Proportions, Percents, and Similar Triangles	
a. Write ratios using a faction, colon or “to”	h. Write percent as fractions and vice-versa
b. Write proportions	i. Write percent proportions
c. Determine whether proportions are true or false	j. Solve percent problems using proportions
d. Solve proportions using cross-products	k. Using the percent equation
e. Solve application problems using proportions	l. Solve percent application problems
f. Solve similar triangle problems using proportions	m. Solve simple interest problems
g. Write percent as decimals and vice-versa	n. Solve compound interest problems

Math 28 Course Content – Modules

<table>
<tr><td colspan="2">Module #5: Introduction to Real Numbers (including basic roots, signed numbers and properties) and Algebraic Expressions (including Geometric formulas)</td></tr>
<tr><td>a. Classify numbers and graph them on a number line
b. Order relations
c. Find the opposite and absolute value of real numbers
d. Add real numbers
e. Subtract real numbers
f. Multiply and divide real numbers; order of operations</td><td>g. Properties of real numbers
h. Simplifying expressions
i. Find the perimeter and area of polygons (rectangle, square, parallelogram, trapezoid and triangles) and composite figures
j. Find circumference and area of circles
k. Find volume and surface area
l. Square roots and the Pythagorean Theorem</td></tr>
<tr><td colspan="2">Module #6: Linear Equations and Inequalities in One Variable</td></tr>
<tr><td>a. Addition Property of Equality and applications
b. Multiplication Property of Equality and applications
c. More on Solving Linear Equations</td><td>d. Applications of Linear Equations
e. Formulas and Additional Applications from Geometry
f. Solving Linear Inequalities</td></tr>
<tr><td colspan="2">Module #7: Linear Equations and Inequalities in two Variables</td></tr>
<tr><td>g. Interpret graphs
h. Solutions of Linear Equations; intercepts
i. Plot ordered pairs
j. Graph linear equations in two variables; intercepts</td><td>k. Slope of a line
l. Equations of lines
m. Graph linear inequalities in two variables</td></tr>
<tr><td colspan="2">Module #8: Selected Topics - Quadratic Formula, Parabola, Systems of Equations and Inequalities, Scientific Notation, and Variation</td></tr>
<tr><td>n. Scientific notation and applications
o. Solving system of equations by graphing
p. Solve system of equations by substitution
q. Solve system of equations by elimination
r. Application of Linear Systems</td><td>s. Solving system of linear inequalities
t. Solving quadratic equations by the Quadratic Formula
u. Graphing Quadratics equations – Parabola
v. Variation</td></tr>
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Math 29 Course Content – Modules

Module #9: Exponents and Polynomials	
w. Adding and subtracting polynomials x. The Product Rule and Power Rules for exponents y. Multiplying polynomials	z. Special Products aa. Integer exponents and the Quotient Rule bb. Dividing Polynomials
Module #10: Factoring Polynomials and Applications, and Functions	
a. Factoring polynomials: GCF b. Factoring polynomials: Trinomials c. Factoring polynomials: Special techniques	d. Solving quadratic equations by factoring e. Applications of quadratic equations f. Functions
Module #11: Rational Expressions and Equations	
a. The Fundamental Property of Rational Expressions b. Multiplying and dividing rational expressions c. Adding and subtracting rational expressions	d. Complex fractions e. Solving equations with rational expressions f. Applications of rational expressions
Module #12: Roots and Radicals (including the Square Root Property)	
a. Evaluating roots b. Multiplying, dividing and simplifying radicals c. Adding and subtracting radicals d. Rationalizing the denominator	e. More simplifying and operations with radicals f. Solving equations with radicals g. Solving Quadratic equations using the Square Root Property h. Rational Exponents

Time Management – Set Your Weekly Schedule

To complete this course within a semester, students are expected to complete each module in four weeks or less. To achieve this goal, you will need to devote at least 10 hours per week outside of the class on math work. To manage you time well, complete the following schedule with your class time, tutoring time, SI session, work time, math study time, commute time, and leisure time. Discuss with me once complete.

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