

Course Syllabus (Spring 2015 Semester)

Math 21 — Developmental Mathematics I (4 Credits)

INSTRUCTOR: Navtej (Johnny) Singh

E-MAIL: navtej@hawaii.edu < Reference Your Name and Class Information When E-mailing >

OFFICE: Manaopono 110

OFFICE HOURS: T Th 10:00am – 11:30am and by appointment.

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

CRN	Course ID for MathXL	Class Meeting	Days	Classroom
63417	XL1S-51S4-201Z-5912	8:05am – 9:45am	T TH	Manaopono 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

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, geometric formulas, and similar triangles. Pre-Requisite(s): 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. In this self-pace course, students meet individually with the instructor to develop their course plan. The course material is divided into four modules (plus review module). Students begin each module by working on selected study plan 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.

- ❖ 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 course material, and passed modules. You can discuss this option further with me for more detail.

Learning Resources and Materials

The textbook for this course is “Developmental Mathematics” 8th Edition by Bittinger. WCC book store should have custom edition of this textbook that come with MathXL access code, which is essential for this course. For quick reference you can use the ISBN 1269747649. A reliable computer with home internet access and a headphone is also required for this course.

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

Attendance	10%
Written Homework	15%
Class Participation	05%
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 form) 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/Math XL homework for each module. 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 binder to be turned in at the end of the semester for grades. 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.

Exams

After watching necessary lecture videos and doing study problems, the student will take a Pre-Test for each module. 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. Note that students must pass the review module before the drop date without a W; otherwise student must drop the class. 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. 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. You can also take the tests at the Math Center (Manaopnon 103) during certain hours. Testing hours will be posted on the door. Calculators are not permitted all exams.

Basic Rubrics for Grading Multistep and Word Problems for Exit Exam	
Full Credit	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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

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 myuh.hawaii.edu under Brainfuse 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 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, 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.

MySuccess Program

At Windward Community College we want every student to be successful. MySuccess is a system-wide effort that seeks to support students early in the semester when they first begin experiencing difficulty in a class. If I feel that you are having difficulty in my class within the first few weeks of the semester (e.g. missing class, missing assignments, or low test scores), and working together to address your challenges shows that you would really benefit from being connected to resources outside of the classroom, I may refer you to your assigned counselor. Once referred, MySuccess will:

- Send an email to your hawaii.edu account to let you know about my referral; and
- Have a counselor follow-up with you by phone or by email to find out what kinds of help you might need, to connect you with the necessary resources, and to help you devise a strategy for success.

I will not refer you without telling you. However, if I do refer you, know that I am doing so in an effort to connect you with all the help you may need to do well this semester as your success is important to me

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.

All students are required to pass Review Module Post Test before the drop date without W.

Course Content – Modules

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

How to Register and Enroll in MathXL

To join this course, you need to register for MathXL and then enroll in the course.

1. Registering for MathXL

Before you begin, make sure you have the access code that comes with your MathXL Access Kit.

To register or buy access, go to www.mathxl.com, click the **Student** button in the Register section, and then follow the instructions on the screen.

2. Enrolling in your instructor's course

After registering, log in to MathXL with your username and password. To enroll in this course, enter the following Course ID:

The Course ID for your course is: XL1S-51S4-201Z-5912

Need more help?

To view a complete set of instructions on registering and enrolling, go to www.mathxl.com and visit the Tours page.

Guided Schedule to Complete Math 21 during Spring 2015 Semester

Week	Dates (T & R)	Assignments to Complete
1	1/13 & 1/15	Discuss Syllabus, Sign up for MathXL, Course Overview
2	1/20 & 1/22	Mod R (Review Module) – Lecture Video, Pre-Test, and HW
3 [^]	1/27 & 1/29	Pass Mod R Post-Test, Evaluate Individual Standing!!, Start on Mod 1 Material
4	2/3 & 2/5	Pre-Test Mod 1 and complete Computer HW
5	2/10 & 2/12	Pass Post-Test 1, Watch Lecture Videos on Mod 2, Take Pre-Test Mod 2
6	2/17 & 2/19	Complete Mod 2 Computer HW
7	2/24 & 2/26	Take Post-Test Mod 2 and Start on Mod 3
8	3/3 & 3/5	Take Pre-Test Mod 3 and Start Mod 3 Online HW
9	3/10 & 3/12	Finish Mod 3 Computer HW and Take Mod 3 Post-Test
10	3/17 & 3/19	Watch Lecture Videos on Mod 4 and Take Mod 4 Pre-Test
11*	3/24 & 3/26	Spring Break
12*	3/31 & 4/2	Mod 4 Online HW
13	4/7 & 4/9	Finish Mod 4 Online HW
14*	4/14 & 4/16	Pass Post-Test Mod 4
15	4/21 & 4/23	Complete Makeup Work
16	4/28 & 4/30	Finish Exit Exam Review
17	5/5	Consultations
18**		Final's Week – All Course Work Must be done prior to taking Exit Exam

**Final Exam for this class can take earlier than designated date with instructor's approval if all other course work is complete.

!! – Must Pass Review Module Post Test by January 29th class meeting to continue this class, otherwise switch to lecture based Math 21 class.

[^]Drop Dates: February 2nd, 2014 – Last day to withdraw without a W grade

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.

Time/Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7:00 AM							
7:30 AM							
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