MULTI-LEVEL MATH SECTION - 3 credits per course  
(Math 20, Math 22, Math 24, Math 25)  
MTRF 10:00 – 11:50 a.m.  

INSTRUCTOR: Jean Okumura  
OFFICE: Mana’opono 112A  
OFFICE HOURS: W 10:00 – 11:50 am in Mana’opono 103  
Other Hours by Appointment  
TELEPHONE: 236-9282  
FAX NUMBER: 247-5362 Attention: Jean Okumura  
EMAIL ADDRESS: jokumura@hawaii.edu  
EFFECTIVE DATE: Summer 2011  

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 Koʻolau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

Catalog Description  

The catalog description and pre-requisites for the Math 20, Math 22, Math 24, and Math 25 courses are available in the catalog.

Note: This multi-level class utilizes an alternate mode of instruction for students enrolled in developmental courses (Math 20 – Basic Mathematics, Math 22 – Pre-algebra, Math 24 – Elementary Algebra I, and Math 25 – Elementary Algebra II). In this mode, students are still required to attend class to spend time on task. Students will be using the same text, satisfying the same student learning outcomes, taking the same departmental test and cumulative final exam, and held to the same standard or level of mastery as any other student enrolled in the same course. Students are required to purchase the access code for MathXL. If the textbook is purchased from the bookstore, it automatically comes with the MathXL access code. In addition to their work on the computer, students will be required to demonstrate their ability to do “paper and pencil” work.

Learning Resources and Materials  

Required Texts:


Learning Resources and Materials (continued)

The courses within the Multi-level section also have Supplemental Instruction (SI) provided by SI leaders, Peter Han and Ada Garcia. The SI leaders will post SI sessions that they conduct. Students are required to spend at least 5 hrs per week outside of class time with the SI leader.

MATH LAB: Mana'opono 113
Provides Free Drop-in Tutorial Assistance

THE TESTING CENTER (TTC): Alaka'i 106 – phone number 235-7498

UH Manoa Online Learning Academy: http://manoa.hawaii.edu/ola/
Free online tutorial assistance from 2 to 10 pm

Suggested Basic Skills

Good study skills and habits; discipline to work on the course consistently and regularly and commitment to completing the course in a timely manner; Competency with the pre-requisite course to the course the student is registered for (Math 20, Math 22, Math 24, or Math 25).

STUDENT LEARNING OUTCOMES

The student learning outcomes for Math 20, Math 22, Math 24, and Math 25 are listed in the catalog.

COURSE CONTENT

Refer to the course description in the catalog for the course content for Math 20, Math 22, Math 24, and Math 25.

Activities Required at Scheduled Times Other Than Class Times

Reading the text and taking notes from the text; studying the material; doing problems from MathXL and/or the text; Homework; consultation with instructor.

It is expected that students spend, at the minimum, 24 hours per week outside of class time studying and doing homework and readings for this class.
Responsibilities of Students

Success in this course will be enhanced by:

1. A positive, inquiring attitude toward mathematics;

2. Setting aside adequate time for studying, working on problems, and careful cogitation of the material;

3. Reading the text carefully and making use of other learning materials whenever necessary;

4. Seeking assistance from the instructor and the Math Lab whenever necessary;

5. Regularly attending class and, notifying the instructor of an absence and responsibly completing assignments in a timely manner.

Course Tasks

The mode of instruction is primarily computer assisted instruction using MathXL. The textbook provides basic definitions of terms, general strategies and properties, and examples. In addition to the instructor, student assistants will be available in the class to help students. Students begin by reading the textbook and taking notes on the section read. Then, a pre-test for the section must be taken to determine the student's area of mastery and areas that need to be worked on within each section of that course. Students then will do homework for that section that is customized based on the results of the pre-test. Students will also meet individually with the instructor at least once a week to review their progress in their study plan and to review results of homework and exams.

The students will be using the text, satisfying the same student learning outcomes, taking the same tests and final exams, and held to the same standards or level of mastery as any other student enrolled in the same course. Upon completing all the work outlined in their course plan, the student will receive credit and an appropriate grade for the course (Math 20, Math 22, Math 24, or Math 25). The student may decide to enroll in the next course if it is within the allowable deadlines and continue as outlined above, 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.
ASSESSMENT TASKS AND GRADING

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

1. **Homework and Portfolio**

   Homework for each section is determined by a student’s pre-test for that section. MathXL generates a personalized homework for each student based on his or her pre-test result for a section. The homework links directly to interactive tutorial exercises for topics the student hasn’t yet mastered. When working on exercises, copy down the problem on your paper, work out the problem, then submit the answer online. Assignments must demonstrate the student’s ability to show their work neatly and completely, and be submitted in written form (pencil and paper) to the instructor. The instructor or SI leader will be checking the written work periodically in class to insure that the students are showing their work correctly and progressing through their study plan. Students must attain a score of at least 80% on each homework assignment to be able to move on to the next section.

   Prior to doing the homework, students must take notes on the section. After completing each assigned homework for a chapter, students must complete the Chapter Cumulative problems on-line (at the 80% level or higher) and the work done to obtain their answers for the chapter pre-test must be approved by the instructor or SI leader prior to taking a test for the chapter.

   All notes, work for homework, chapter cumulative work, any retest work, and a record of SI sessions (hours) attended outside of class time are kept in the portfolio. A minimum of 5 hours per week of SI sessions outside of class time are required.

   The portfolio comprises 12% of the course grade.

2. **Chapter Test and Chapter Quiz**

   Chapter tests and/or quizzes are taken in The Testing Center at the end of each chapter. A chapter test (paper and pencil version only) will be 50 minutes in length and will be scored on a 100-point scale. A unit quiz (only given in Math 20) will be 30 minutes in length and will be scored on a 50-point scale. **The student must achieve a minimum of 70% of the possible points for each chapter exam and quiz. Without this minimum requirement, a passing grade and credit for the course are not possible.** One retest per chapter is available for those who do not achieve the minimum 70% the first time.

   All the chapter tests and/or quizzes (paper and pencil version) comprises 70% of the course grade.

3. **Final Exam**

   The final exam will cover the concepts and skills in the entire course. The final exam is one hour, fifty minutes in length and will be scored on a 150-point scale. **The student must achieve a minimum of 60% of the possible points for the final exam. Without this minimum, a passing grade for the course is not possible.**
3. **Final Exam (continued)**

No retesting for the final exam is available unless the 60% minimum is not met and the 70% minimum per chapter test has been met. The maximum allowed on the retest of the final exam is 60% and the minimum required is 60%.

The final exam comprises 18% of the course grade.

4. **Course Grade**

Each letter grade for the course will be assigned according to the level of achievement listed below:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Definition</th>
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<tbody>
<tr>
<td>A</td>
<td>90% - 100% of the cumulative points possible</td>
</tr>
<tr>
<td>B</td>
<td>80% - 89% of the cumulative points possible</td>
</tr>
<tr>
<td>C</td>
<td>70% - 79% of the cumulative points possible</td>
</tr>
<tr>
<td>D</td>
<td>60% - 69% of the cumulative points possible</td>
</tr>
<tr>
<td>F</td>
<td>Less than 60% of the cumulative points possible</td>
</tr>
<tr>
<td>Cr</td>
<td>70% - 100% of the cumulative points possible</td>
</tr>
<tr>
<td>NC</td>
<td>Less than 70% of the cumulative points possible</td>
</tr>
<tr>
<td>N</td>
<td>See Below</td>
</tr>
<tr>
<td>W</td>
<td>Official Withdrawal</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete - given when a student has failed to complete a SMALL part of the course due to circumstances beyond his/her control.</td>
</tr>
</tbody>
</table>

N Grade Definition: The student has worked conscientiously, attended class 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.

Note: Cr/NC grading may be selected online at the time when the student registers for the class. Otherwise, students must apply for Cr/NC grading option by submitting the proper and completed form (that requires instructor consent) to the Admissions Office by the posted deadline.

Note: W grade is given only when the student officially withdraws from the course by the posted deadline.

Note: Students who stop attending class, stop participating in the class, do not discuss their situation with the instructor (essentially disappear from the course), and do not withdraw or select the CR/NC grading option will receive an F grade for the course.
Additional Information

1. ABSENCES:

   It is your responsibility to attend every class meeting. 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 can have a negative impact on your success in this course.

   Two or more absences (including supplemental sessions) may result in an automatic F grade, especially if the student is not keeping up with his or her homework and study plan.

2. GRADING ON HOMEWORK, QUIZZES, OR EXAMS:

   To receive full credit for problems done on any graded activity, you must show sufficient work in a clear, logical, and organized manner. It helps me determine where your error is (hence, you might be able to obtain partial credit) and if you are logically applying the mathematical tools learned to solve the given problem. Your work must be neat and organized. "Messy" and/or disorganized work will not be accepted.

3. CALCULATOR:

   Calculators are not allowed for tests. Calculator use is allowed for homework problems where needed.

4. NOTES AND HOMEWORK:

   For each section read, your notes should have 3 main parts. The first part is DEFINITIONS. In this part, write down terminology (words or phrase) or symbols and their meanings. The second part is RULES. In this part, write down formulas and properties/rules that are important for each section. The third part is STRATEGIES. In this part, write general strategies mentioned in the section. You can also include example problems from the text that you have redone to make sure that you understand the example.

   After taking the pre-test for a section, you will be given the homework assignment for the section. If you just want to do all the homework problems for the section, just submit your pre-test after starting it. Since the pre-test score will be 0, you will be given all the homework for the section. Be sure to do your work for the homework neatly on paper as your work will be checked periodically and you need to turn in your work in your portfolio.

   If you need more practice, it is helpful to try some of the odd numbered problems in each section. The answers to the odd numbered problems are available at the back of the textbook with more detail solutions provided in the student’s solution manual.
5. HELP:

Your instructor and SI leaders are your primary human resource for help when you are lost or having trouble. Seek help immediately if you are encountering problems even after reading and re-reading the text section(s) and working on the online homework. See the instructor during class, office hours, make an appointment, email or call. Don’t wait too long to get help!! The Math Lab tutor is also available for drop-in assistance on the course material.

If a crisis comes up that interferes with the class, communicate with your instructor in a timely manner. Too many students wait until it is too late to inform their instructor about their crisis and that reduces the options that students may have to complete the course with a grade of C or better.

If you qualify for the TRIO program, you may be able to get tutoring services from them.

6. CELL PHONES: Please put your cell phone on silent mode or turn it off prior to the start of the class so that it does not disturb the class session.

7. ACADEMIC HONESTY

All quizzes and exams are closed books and notes and must be done by your individual effort. You may not consult with any classmates while taking quizzes or exams. You are not allowed to tell a friend the type of questions on the quiz or exam, the answers, or help a classmate in any way (e.g. by explaining how to solve the problem). This would fall under the guidelines of academic integrity and any evidence of cheating will result in a score of 0 for all parties involved. Also keep in mind that we are assessing your knowledge and understanding of the concepts and strategies – attempting to find the answers online or through other sources is not in the spirit of academic honesty.

You must complete all homework. You may consult with the SI, with the instructor, with the Math Lab tutor, or with the online help aids. However, you are not allowed to let someone else do your homework for you. This would fall under the guidelines of cheating

An “F” will be assigned to students involved in cheating and will be reported to the Dean.
8. DISRUPTIVE BEHAVIOR

Disruptive Behavior leads to a loss of learning time. Examples of disruptive behavior are activated beepers and cell phones, texting messages, making offensive remarks, packing books before class is over, making excessive noise, leaving class early, coming to class late, sleeping in class, prolonged chattering, reading other materials not relevant to this class, etc. If a student takes part in disruptive behavior, the instructor reserves the right to exclude the student immediately from the class meeting, and will be marked absent.

9. EMAIL AND MATHXL WEBSITE

You are responsible for checking your UH email regularly for important announcements. You are also expected to work at the MathXL site daily.

10. DON’T PROCRASTINATE

Mathematics is not a subject that you can consistently be successful in by "cramming" a day or two before the test. By "cramming" you don't develop proficiency in doing the problems, knowledge of what to do on a particular problem and long-term understanding of the process. Also, if you procrastinate, you may fall so hopelessly behind that it becomes impossible to complete the course by the end of the semester. It requires constant work to keep on top of the material.

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, or you may stop by Hale ‘Akoakoa 213 for more information.
Math 20

1. Tests – Chap 1, 2, 3
2. Unit Quizzes – Chap 4, 6, 7
3. Cumulative Final Exam

Math 22

1. Tests
   a. Test 1 – Chap 4
   b. Test 2 – Chap 6
   c. Test 3 – Chap 7
   d. Test 4 – Chap 8

2. Cumulative Final Exam

Math 24

1. Tests – Chap 1, 2, 3, 4
2. Cumulative Final Exam including sections 5.1, 5.2, and 5.3

Math 25

1. Tests – Chap 5, 6, 7, 8, 9/3
2. Cumulative Final Exam
CLASS PROCEDURE:

1. Read the section. Take notes. For each section read, your notes should have 3 main parts.
   a. The first part is DEFINITIONS. In this part, write down terminology (words or phrase) or symbols and their meanings. Include at least one example of the use of the terminology or symbol.
   b. The second part is RULES. In this part, write down formulas and properties/rules that are important for each section. Include at least one example of the use of the formula or property/rule.
   c. The third part is STRATEGIES. In this part, write general strategies mentioned in the section. You can also include example problems from the text that you have redone to make sure that you understand the example. Include an example of a multiple step problem.

2. Take the pre-test for the section. Do it in one seating. In other words, don’t start it and take a break in between.
   a. Based on the results of the pre-test, a customized homework assignment will be given.
   b. If you would prefer to just do all the homework, after you start the pre-test, just submit the quiz without doing any problems. Then, you will be assigned all the homework of that section.

3. After you take the pre-test for the section, do the homework for the section.

   **You must get at least 80% correct on the homework to be able to move on to the next section.** Periodically, when you are doing your homework, show your work to an SI leader or to Jean Okumura so that if you are not showing your work properly, you will be corrected.

4. After you finish all assigned homework for the sections for a chapter, do the Chapter Cumulative.
   a. You must score at least 80% on this online test and your work for the problems must be approved by Jean Okumura to be able to take the actual paper and pencil test that counts toward your grade.
   b. You are allowed to redo this Chapter Cumulative as many times as necessary to get the 80% minimum. However, before you retake this test, you need to meet with an SI or Jean Okumura to review your mistakes to minimize the number of times that you need to retake this cumulative test.
CLASS PROCEDURE (continued):

5. After you obtain at least 80% on the Chapter Cumulative, then arrange to meet with Jean Okumura to show your work for the version of the Chapter Cumulative that you got the 80% on. At this time, we will arrange when you will take your test.

6. Take your paper and pencil test for the chapter. All paper and pencil tests are arranged with Jean Okumura and are taken in the Testing Center, Alakai 106. The Testing Center is open M – F 8 am to 4 pm, except for holidays.

7. Retesting of a paper and pencil chapter test
   a. If you score at least 70% on your paper and pencil test for the chapter, then you do not need to take a retest and you can move on to the next chapter. You are welcome to take a retest if you like to improve your grade for that test.
   b. If you score below 70% on your paper and pencil test for the chapter, then you must take a retest before you move on to the next chapter.
   c. One retest is allowed without penalty for each chapter test. The better of the two test scores will count towards your grade. Retests are arranged by appointment with your instructor. The same applies to each unit quiz.
   d. To take a retest for a chapter test or unit quiz, all of the following must be met:
      (1) All problems assigned from the Chapter Test at the end of the chapter or a Retest Self-test (if available) must be completed and approved by the instructor.
      (2) The student must meet with the instructor or SI leader to review mistakes made on the first form of the test taken.
      (c) Additional math activities as designated by the instructor must be completed.

8. When all chapter tests or quizzes have been completed with the minimum 70%, then do the Final Exam Review.
   a. For Math 24 students, you will need to do the pre-test and homework for sections 5.1, 5.2, and 5.3 before doing the Final Exam Review.
   b. For Math 20 and 22, you will need to request the Final Exam Review Sheet.
   c. For Math 24 and 25, the Final Exam Review Sheet is at the end of your textbook.

9. When you have completed the Final Exam Review and all problems are correctly done, then arrange to meet with Jean Okumura to show her your Final Exam Review work, to arrange your Final Exam date/time and to arrange to turn in your portfolio.
Math Portfolio

The Math Portfolio is due at the time you take your final exam. It counts 12% toward your grade. The portfolio must include:

1. Course Outline, Tentative Schedule, Time Management Schedule and any other materials distributed to the class.
2. Notes for each section.
3. Work for the homework for each section.
4. Work for pre-test and chapter cumulative.
5. SI session log – Minimum of 5 hours per week for SI sessions must logged and verified (signature of SI leader required).

The Math Portfolio will be graded in the following way:

1. Course Outline, Tentative Schedule, Time Management Schedule, etc: 3 points
2. Notes for each section: 30 points
   (2 points will be deducted for each section that does not have notes.)
3. Work for the homework for each section: 30 points
   (2 points will be deducted for each section that does not have the work submitted.)
4. Work for the pre-test and chapter cumulative: 10 points
   (1 point will be deducted for each pre-test or chapter cumulative that does not have the work submitted.) Only the work for the chapter cumulative that gets the 80% minimum score must be submitted.
5. SI session log: 25 points
   (1 point will be deducted for every hour below 5 hours per week that is not logged and verified.)
6. Overall Organization and Neatness: 2 points.
**Multilevel Math Section Grading Procedure**

18% of the final grade comes from the final exam.
70% of the final grade comes from the chapter test and/or quizzes.
12% of the final grade comes from the portfolio.

An example of how your grade is calculated:

**Math 24**
At the end of the semester:

<table>
<thead>
<tr>
<th>Raw Points</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch 1 80/100</td>
<td></td>
</tr>
<tr>
<td>Ch 2 85/100</td>
<td></td>
</tr>
<tr>
<td>Ch 3 70/100</td>
<td></td>
</tr>
<tr>
<td>Ch 4 71/100</td>
<td></td>
</tr>
</tbody>
</table>

Total of the Chapter Tests is \( \frac{306}{400} = 76.5\% \)

Final exam: \( \frac{100}{150} = 66.6\% \)

Portfolio: \( \frac{90}{100} = 90\% \)

Final Exam: \( 66.6\% \times 180 = 120 \) points  
Note: \( \frac{180}{1000} = 18\% \) of grade

Ch Tests: \( 76.5\% \times 700 \approx 536 \) points  
Note: \( \frac{700}{1000} = 70\% \) of grade

Portfolio: \( 90\% \times 120 = 108 \) points  
Note: \( \frac{120}{1000} = 12\% \) of grade

Total: 764 points out of 1000 points

\( \frac{764}{1000} \approx 76\% \Rightarrow Grade: C \)