

MATH 103 - COLLEGE ALGEBRA 4 credits (CRN 60089)

TR 11:30 a.m. - 1:20 p.m.

INSTRUCTOR: Jean Okumura OFFICE: Mana`opono 112A

OFFICE HOURS: By email (response within 24 hours)

Or by Appointment via Zoom

**TELEPHONE:** 236-9282

FAX NUMBER: 247-5362 Attention: Jean Okumura

EMAIL ADDRESS: jokumura@hawaii.edu

**EFFECTIVE DATE:** Fall 2020

CONNECT MATH COURSE CODE: JJHEH-FELAH

#### 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 the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

# **Catalog Description**

Linear equation, inequalities, systems of equations, polynomial functions, fractional expressions and equations, exponents, powers, roots, quadratic equations and functions; rational, exponential and logarithmic functions. (4 hrs. lecture)

PREREQUISITES: Grade of "C" or better in Math 25, 26, 29, 82 or equivalent,

satisfactory placement test score, or consent of instructor.

WCC: FS, FQ

# **Suggested Basic Skills**

Good study skills and habits; Competency with Elementary Algebra; Diligence and persistence.

#### 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, <a href="lemke@hawaii.edu">lemke@hawaii.edu</a>, or you may stop by Hale 'Akoakoa 213 for more information.

# **Learning Resources and Materials**

Required Text: College Algebra Essentials by Julie Miller

Required Material: Connect Math access code

**Connect Math Course Code: JJHEH-FELAH** 

MATH LAB: La'akea 220 – free drop-in tutorial assistance

THE TESTING CENTER (TTC): La'akea 228 – phone number 235-7498

UH Manoa Online Learning Academy: http://manoa.hawaii.edu/ola/

Free online tutorial assistance M – F: 9 am to 10 pm and Sundays: 5 to 10 pm

Tutor.com: https://windward.hawaii.edu/tutor.com/

Free online tutorial assistance accessed via the MyUH portal.

Khan Academy: <a href="https://www.khanacademy.org/">https://www.khanacademy.org/</a>
Free online lessons and practice.

#### STUDENT LEARNING OUTCOMES

These student learning outcomes will be assessed via course activities (homework, inclass work, and/or additional assignments) and via tests or quizzes.

- 1. Graph or interpret algebraic relations that are relevant to the topics in this course.
- 2. Employ algebraic techniques to find the solutions to equations or inequalities, or systems of equations or inequalities appropriate to the level of this course.
- 3. Use algebraic techniques to analyze and solve applied problems.
- 4. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

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

Homework; possibly quizzes and exams; consultation with instructor.

Learning takes time. To be successful in this class, students need to spend, at the minimum, 12 hours per week outside of class time studying, and doing homework and readings for this class.

#### FOUNDATIONS QUANTITATIVE HALLMARKS

Math 140 fulfills 3 credits of the General Education requirements (Foundations: Quantitative – Effective Fall 2018) for both an A.A. degree at WCC and a Bachelor's degree at UH Manoa. Consequently, it meets the following hallmarks of the Quantitative Reasoning requirement:

- 1. Provide students with theoretical justifications for, and limitations of, mathematical or statistical methods, and the formulas, tools, or approaches used in the course.
- Include application of abstract or theoretical ideas and information to the solution of practical quantitative reasoning problems arising in pure and applied research in specific disciplines, professional settings, and/or daily and civic life.
- 3. Provide opportunities for practice and feedback that are designed to help students evaluate and improve quantitative reasoning skills by including a course component at least once per week with a maximum 30:1 student-to-teacher ratio.
- 4. Be designed so that students will be able to
  - a. identify and convert relevant quantitative information into various forms such as equations, graphs, diagrams, tables, and/or words;
  - b. select appropriate techniques or formulas, and articulate and evaluate assumptions of the selected approaches;
  - c. apply mathematical tools and perform calculations (including correct manipulation of formulas);
  - d. make judgments, create logical arguments, and/or draw appropriate conclusions based on the quantitative analysis of data, the assumptions made, the limitations of the analysis, and/or the reasonableness of results; and
  - e. effectively communicate those results in a variety of appropriate formats.

## **TITLE IX**

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: <a href="https://windward.hawaii.edu/Title\_IX/">https://windward.hawaii.edu/Title\_IX/</a>.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, WCC has resources to support you. To speak with someone confidentially, contact the Mental Health & Wellness Office at 808-235-7393 or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or <a href="mailto:kaahualo@hawaii.edu">kaahualo@hawaii.edu</a>. To make a formal report, contact the Title IX Coordinator, Karla K. Silva-Park, at 808-235-7468 or <a href="mailto:karlas@hawaii.edu">karlas@hawaii.edu</a>.

#### **Course Content**

- Sets and the Real Number Line; Models, Algebraic Expressions, and Properties
  of Real Numbers; Integer Exponents and Scientific Notation; Rational Exponents
  and Radicals; Polynomials and Multiplication of Radicals; Division of
  Polynomials; Factoring; Rational Expressions and More Operations on Radicals.
- Linear Equations and Rational Equations; Applications and Modeling with Linear Equations; Complex Numbers; Quadratic Equations; Applications of Quadratic Equations; More Equations and Applications; Linear Inequalities and Compound Inequalities; Absolute Value Equations and Inequalities; Polynomial and Rational Inequalities.
- The Rectangular Coordinate System (Distance and Midpoint Formulas); Circles; Functions and Relations; Linear Equations in Two Variables and Linear Functions; Applications of Linear Equations and Modeling; Algebra of Functions and Function Composition.
- Quadratic Functions and Applications; Variation.
- Exponential Functions; Logarithmic Functions; Properties of Logarithms; Exponential and Logarithmic Equations.
- Systems of Linear Equations in Two Variables and Applications; Systems of Linear Equations in Three Variables and Applications; Systems of Nonlinear Equations in Two Variables; Inequalities and Systems of Inequalities in Two Variables.

# Your Responsibilities as a Student

Success in this course will be enhanced by:

- A positive, inquiring attitude toward mathematics;
- Setting aside adequate time for studying, working on problems, and careful cogitation of the material;
- Reading the text carefully and making use of other learning materials whenever necessary;
- Seeking assistance from me (or Math Lab, TRiO, Tutor.com, OLA) whenever necessary;
- Regularly class participation and attendance; notifying the instructor of absences; responsibly obtaining and completing assignments by the designated date.

#### **Course Goals**

- To provide the student with mathematical background necessary to pursue advanced work in mathematics and in other areas.
- To provide the student with fundamental concepts, properties, and applications of college algebra.
- To extend the student's understanding and ability to apply algebraic concepts beyond the level of elementary algebra.
- To promote greater student appreciation and awareness of the role of algebra in the environment and culture.

# **Connect Math (CM)**

It takes time and effort to learn new things. To help you to better learn the content of this course, you will be utilizing Connect Math (CM) for many homework assignments. The new textbook purchased from the WCC bookstore is packaged with a CM access code. If you purchase the textbook from elsewhere, be sure that it comes with the CM access code.

The CM access code also provides an e-book so if you prefer, you may purchase only the Connect Math access code with e-book through my Math 103 course at CM.

When you are in the CM class, select "Help" near the top of the page and then "System Requirements" to make sure that you have all the necessary system requirements. You should also clear your history or cache for your browser. It must have **flash.** 

After checking your system, select the Resources Tab near the top of the page, then select the References Tab. Do the "How to do assignments with online problems" Tutorial to learn how to enter your answers and to see if the program is working properly for you.

There is no limit on the number of times you do a homework assignment at CM. However, there is a late penalty (25% for each question correctly done after the initial deadline). There is also a final deadline for each assignment and after this final deadline, that homework assignment is closed. The best score will be counted for each homework assignment.

#### ALTERNATE CONTACT INFORMATION

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

Location: Alakai 121 Phone: 808-235-7422 Email: wccaa@hawaii.edu

## **Email and Laulima Website**

Since part of the course requirements are done via Laulima, it is very important that you visit our class Laulima site every day. Also, since important announcements are sent to your UH email address, you need to check your UH email regularly (at least 3 or 4 times a week).

# **Academic Honesty**

The purpose of quizzes and exams is to show what you have learned and understand without relying upon notes or help. Therefore, books, websites, and notes are NOT allowed. Quizzes and exams must be done by your individual effort unless otherwise indicated by the instructor. This includes not consulting 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 the quiz or exam for all parties involved. Also, attempting to find the answers online or through other sources is not in the spirit of academic honesty. If cheating persists, an "F" will be assigned to students involved in **cheating** and the situation will be reported to the Vice Chancellor for Student Affairs.

Graded homework assignments that apply to the course activities portion of your grade are open book, websites, and notes. You may discuss problems with your classmates and you may seek guidance from the instructor, the Math Lab tutors, online tutors, or the TRiO tutors (if you are a TRiO client), however, the write up of the solution for each problem must be done on **your individual effort** unless otherwise specified by the instructor. Graded assignments are **not group assignments** where all members of the group write the same responses for each problem. Any evidence of plagiarism will result in a score of 0 for the assignment for all parties involved. If plagiarism persists, then an "F" will be assigned to the students involved in **plagiarism** and the situation will be reported to the Vice Chancellor for Student Affairs.

The <u>Student Conduct Code</u> provides you with more information on expected student conduct for all UH campuses.

# **Disruptive Behavior**

**Disruptive Behavior** leads to a loss of learning time. Examples are activated beepers and cell phones, texting messages, making offensive remarks, packing books before class is over (when meeting in the physical classroom), making noise, leaving class early, coming to class late, or sleeping in class (when meeting in the physical classroom), reading other materials not relevant to this class (when meeting in the physical classroom), etc. The instructor reserves the right to immediately exclude students with disruptive behavior(s) from the class meeting, and will be marked absent.

Remember that class time is learning time. Also, be respectful of others and their learning time.

# **Course Tasks and Grading Information**

Grades for this course are based on the following course tasks:

4 exams @100 pts	400 pts	(53.3% of possible pts)
Course Activities	225 pts	(30% of possible pts)
(Total % correct)(225) = pts for CA	•	
Final Exam	<u>125 pts</u>	(16.7% of possible pts)
Total points	750 pts	

Course activities may include but are not limited to:

Connect Math Homework Activity Sheets/Worksheets/Problem Set Quizzes Journal entries (writing assignments)

Problem-Solving Session Participation Reports or Presentations

For Course Activities other than Connect Math Homework and Activity Sheets, there are no make-up opportunities for missed or late assignments (in-class activities, problem-solving session participation, quizzes or other activities that are graded for the course activities portion of your grade). For Activity Sheets, you will have 5 one-business day late graces (LG) to allow you to turn in your Activity Sheet late so that there is no grade penalty. Only 1 one-business day late grace may be used per Activity Sheet, unless otherwise specified by the instructor. There will also be <u>some</u> opportunities to earn extra credit points for the course activities portion of your grade. One business day late graces cannot be used on assignments designated as extra credit. The <u>maximum</u> score for the course activities portion of your grade is 225 points.

Each letter grade for the course will be assigned according to the level of achievement as provided in the table below:

Letter Grade	<u>Definition</u>
Α	90% - 100% of the cumulative points possible
В	80% - 89% of the cumulative points possible
С	70% - 79% of the cumulative points possible
D	60% - 69% of the cumulative points possible
F	Less than 60% of the cumulative points possible
Cr	70% - 100% of the cumulative points possible
NC	Less than 70% of the cumulative points possible
W	Official Withdrawal
I	Incomplete - given when a student has failed to complete a SMALL part of the course due to circumstances beyond his/her control.

Note: Cr/NC grades require written instructor consent. Students must apply for

Cr/NC grading option at the Admissions Office by the posted deadline. If a student does not apply for Cr/NC grading option at the Admissions Office by the required deadline and if s/he does not withdraw, a letter grade (A, B, C,

D, F) will be assigned for the course.

Note: W grade is given only when the student officially withdraws from the course

at the Admissions Office by the posted deadline.

#### **Additional Information**

#### 1. ONLINE SYNCHRONOUS COURSE:

This class is an online synchronous class. The class will have class meetings via Zoom on TR 11:30 am to 1:20 pm. Part of the materials and activities for this class will be offered through the World Wide Web. It will be necessary for students to have access to a computer, the internet and use their UH hawaii.edu email account to participate in this class. This class requires the use of <a href="Laulima">Laulima</a>, <a href="Connect Math">Connect Math</a>, <a href="Zoom">Zoom</a>, and <a href="Genius Scan">Genius Scan</a>. Announcements will be made to let you know the Sections you need to work on before our next class meeting. Things to do before the next class meeting include readings, videos to watch, Connect Math Homework, activity sheets, quizzes, etc.

As you read the textbook, it is helpful to write down terminology or symbols and its definition, formulas, and properties/rules that are important. It is also helpful for your learning to redo the example problems on a separate sheet of paper and show all the steps involved. There is also Skills Practice at the end of each example to help reinforce the skills you are learning. For the physical text, answers for the Skills Practice are available at the bottom of the page.

As you do your Connect Math (CM) homework, it is good idea to write down the problems and the work for each problem. This would be helpful to review to reinforce your learning and understanding of concepts, skills, and strategies.

You may need to do more than the CM homework problems to become comfortable with the concepts, skills, and strategies. From the section exercise, you could select problems that have answers in the back of the text and/or do practice problems from Connect Math (CM) under Resources.

Class time will be spent on student questions, problem-solving activities, and taking exams. Class time will usually not be spent on providing course lectures.

## 2. ABSENCES:

It is very important to attend class. Frequent absences could negatively affect your grade.

- 3. There are NO RETESTS for this course.
- 4. FINAL EXAM: The final exam is cumulative.

## 5. CALCULATOR:

No calculator is allowed for quizzes or exams. A calculator may be used for homework as needed.

# **Additional Information (continued)**

#### 6. CELL PHONES:

Please put your cell phone on silent mode or turn it off prior to the start of the class meeting so that it does not disturb the class session. Put your cell phones away during class time. Please, NO TEXTING during class time.

## 7. MAKE-UP POLICY:

For Course Activities other than Connect Math Homework and Activity Sheets, there are no make-up opportunities for missed or late assignments (in-class activities, problem-solving session participation, quizzes or other activities that are graded for the course activities portion of your grade). For Activity Sheets that are turned in for grading, you will have 5 one-business day late graces (LG). Only 1 one-business day late grace may be used per Activity sheet, unless otherwise specified by the instructor. There will also be <a href="mailto:some">some</a> opportunities to earn extra credit points for the course activities portion of your grade. One business day late graces cannot be used on extra credit assignments.

If you are unable to attend class on an exam day, discuss your situation with the instructor as soon as possible before the exam day. It may be possible for you to take the exam earlier than the specified day/time. IF YOU UNEXPECTEDLY MUST BE ABSENT ON AN EXAM DAY, NOTIFY THE INSTRUCTOR BY THE END OF THAT EXAM DAY. YOU MAY LEAVE A VOICE MAIL MESSAGE FOR THE INSTRUCTOR (236-9282) OR EMAIL JOKUMURA@HAWAII.EDU. BE SURE TO STATE THE REASON FOR THE ABSENCE. If no notification is received by the day of the exam or if the reason is not justified, then you will receive a 0 for that exam and no make-up will be allowed, unless otherwise specified by the instructor. If notification is received and the reason is justified then a make-up exam will be scheduled. The instructor has the right to request documentation of the student's absence and determine if the reason for the absence is justified. FOR EACH STUDENT, NOT MORE THAN ONE MAKE-UP EXAM MAY BE TAKEN.

## 8. GRADING ON HOMEWORK, QUIZZES, OR EXAMS:

To receive full credit for problems done on exams, on quizzes, or for graded course activities, you must show sufficient work in a clear, logical, mathematically precise, and organized manner. This is to assess student learning outcome #3. This helps me to determine where your error(s) 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.

Be sure to review and analyze your graded Activity sheets, quizzes, and exams after it is returned to you. This will help you to learn more thoroughly the material, concepts, and the proper way to show your work.

# **Additional Information (continued)**

# 9. SUPPLEMENTAL INSTRUCTION (SI)

The SI program supports this class. SI is a FREE, collaborative, peer-study program that helps students succeed in difficult classes. The SI leader, Thomalin Sirivattha, is a peer who has taken this class previously and has an understanding of the course material. In SI sessions, students will be able to work with Thomalin (the SI Leader) to explore important concepts, review class notes, discuss reading assignments, and review for tests. All students in this class are encouraged to attend!

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

#### 10. HELP:

Your instructor (me!) and SI Leader (Thomalin) are your primary face-to-face human resources for help when you are lost or having trouble. Other sources of help are the Math Lab tutors, Tutor.com, UH Manoa's Online Learning Academy (OLA) and TRiO Student Support Services.

Seek help immediately if you are encountering problems even after reading and rereading the text section(s) and listening to/thinking about the discussion in class or online on that section(s). Make an appointment with me, email me, or call me. See the SI leader, Thomalin, during SI sessions or office hour. Visit the Math Lab, Tutor.com, or OLA for help. Don't wait too long to get help!! If you would like to be connected with a one-to-one tutor for the semester, please check with Serena Lakalaka fromTRiO Student Support Services at lakala@hawaii.edu.

If a crisis comes up that interferes with the class, communicate with me 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.

## 11. 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 catch up. It requires constant work to keep on top of the material.

# **Additional Information (continued)**

#### 12. N Grade

Students may request for the N grade. The N grade indicates that the student 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."

The N grade is an optional grade. Instructors do not have to give an N grade.

#### 13. Extra Credit for the Course

The following are opportunities to earn extra credit for the course. Other opportunities may become available later in the semester and will be announced when available. The maximum that you can earn for extra credit for the course via the methods below is 10 points for the semester.

a. Forum Response (except for Forum 1)

Give correct responses supported by strategies or properties learned in the course and/or insightful responses with detail information. **Each forum (excluding Forum 1) is worth 2 extra credit points.** 

b. Participation in SI Sessions

Attend SI sessions provided by our SI leader, Thomalin. You may earn 0.5 point of extra credit per half an hour participation in an SI session. The maximum number of points that you can earn for extra credit for the course via SI participation 2.5 points per exam period.

## **GRADING INFORMATION**

MATH 103 - OKUMURA

Grades for this course are based on the following:

4 exams @100 pts 400 pts (53.3% of possible points)
Course Activities 225 pts (30 % of possible points)

(Total % correct)(225) = pts for CA)

Final Exam 125 pts (16.7% of possible points)

Total Possible Points 750 pts

Course activities may include but are not limited to:

Connect Math Homework

Quizzes

Other Problems/Activities/Worksheets

Journal entries (writing assignments)

Problem-Solving Session Participation Reports or Presentations

For Course Activities other than Connect Math Homework and Activity sheets, there are no make-up opportunities for missed or late assignments (in-class activities, problem-solving session participation, quizzes or other activities that are graded for the course activities portion of your grade). For Activity Sheets, you will have 5 one-business day late graces (LG) to allow you to turn in your Activity Sheet late so that there is no grade penalty. Only 1 one-business day late grace may be used per Activity Sheet, unless otherwise specified by the instructor. There will also be <u>some</u> opportunities to earn extra credit points for the course activities portion of your grade. The <u>maximum</u> score for the course activities portion of your grade is 225 points.

Problems or assignments given for extra credit are due as specified by the instructor, and NO late graces are allowed.

Instructor: Jean Okumura Office phone: 236-9282
Office: Mana`opono 112A Email: jokumura@hawaii.edu

Office Hrs: By email (response within 24 hrs)

By Appointment via Zoom

# TENTATIVE SCHEDULE - MATH 103 (CRN 60089) TR 11:30 am – 1:20 pm FALL 2020 - OKUMURA

This is a tentative course schedule and is subject to change. Students will be notified of any changes.

Week#	Dates	Topics
1	Aug 24-30	Orientation, Introduction, Module 1 – R.1, R.3, R.4
2*	Aug 31-Sept 6	Module 1 – R.5, 3.3, R.6, R.7
3	Sept 7-13	Module 1 – 1.1, 1.2, Module 3 – 1.3, 1.4
4*	Sept 14-20	Module 2 – 1.5, Module 1 Exam
5	Sept 21-27	Module 2 – 1.6, 1.7, 1.8
6	Sept 28-Oct 4	Module 2 – 3.6, Module 3 - 2.1, 2.2
7	Oct 5-11	Module 3 – 2.3, Module 2 Exam
8	Oct 12-18	Module 3 – 2.4, 2.5, 2.8
9	Oct 19-25	Module 3 – 3.1, 3.7, 3.5
10	Oct 26-Nov 1	Module 4 – 3.5, 4.2
11*	Nov 2-8	Module 4 – 4.3, Module 3 Exam
12	Nov 9-15	Module 4 – 4.4, 4.5
13	Nov 16-22	Module 4 – 5.1, 5.2
14	Nov 23-29	Module 4 – 5.4, 5.5
15	Nov 30-Dec 6	Module 4 Exam
16	Dec 7-13	Final Exam Preparations
17	Dec 14-18	Final Exam (Date to be Determined)

## \*IMPORTANT DEADLINES:

- Sept 1 Last day for 100% Refund
- Sept 15 Last day for 50% Refund
- Nov 2 Last Day to Withdraw, Request for CR/NC grading, Request for Audit