MATH 82 Algebraic Foundations
4 Credits
Time: MWF 10:15 A.M.~12:10 P.M.
Classroom: Mana’opono 102
CRN 63081

INSTRUCTOR: Andrew Won
OFFICE: Hale Kako’o 107
OFFICE HOURS: MR 12:30~1:30 P.M. (6/14~7/4); MW 12:30~1:30 P.M. (7/9~7/26)
TELEPHONE: (808) 236-9280
E-MAIL: won618@hawaii.edu
EFFECTIVE DATE: June 12~August 3, Summer 2018

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

MATH 82 covers elementary algebra topics. Topics include linear equations and inequalities, graphing, linear systems, properties of exponents, operations on polynomials, factoring, rational and radical expressions and equations, quadratic equations, and applications. (4 hours lecture)

Pre-Requisite(s): Satisfactory Placement, or a Grade of "C" or better in Math 21, Math 21B, Math 24, Math 28, or Math 75X. Co-Requisite(s): None

Activities Required at Scheduled Times Other Than Class Times

Homework; consultation with instructor.

STUDENT LEARNING OUTCOMES

The student learning outcomes for the course are:

1. Use algebraic techniques to analyze and solve applied problems

2. Graph linear and quadratic equations

3. Solve equations, inequalities, and systems

4. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form

Note: All SLOs assessments are embedded in class activities, homework, or Exams.
COURSE CONTENT

Concepts or Topics (What students should know or understand)

- Linear Equations and Inequalities in One Variable
- Linear Equations and Inequalities in Two Variables
- Functions
- Systems of Linear Equations
- Exponents and Polynomials
- Factoring and Applications
- Rational Expressions and Applications
- Roots and Radicals
- Quadratic Equations

Skills or Competencies/Responsibilities of Students. Success in this course will be enhanced by:

1. a positive, inquiring attitude towards learning mathematics;
2. setting aside adequate time for studying and working of problems;
3. reading the text carefully and making use of other learning materials whenever necessary;
4. completing assignments by the designated date;
5. regular class attendance, participation and maintaining accurate class notes.

Course Tasks

The mode of instruction is primarily through class activities, in addition to discussion-problem solving, where the initial portion of each class period may be utilized to discuss and clarify any questions from the preceding class meeting and/or homework, and the remaining portion is used to discuss new material. Lectures, directed student explorations, group work, appropriate technologies, and projects will also be used as appropriate. After the completion of each unit, a review and an exam will be conducted.

The student will demonstrate competency in the objectives by participating in and completing all class activities, by completing and turning in all assignments as requested, by taking chapter tests, and by taking a final exam over concepts and skills covered in the entire course. Class activities, chapter tests, and the final exam are to be taken in the classroom and without any references unless otherwise stipulated by the instructor.

It is the student’s responsibility to obtain and complete all assignments that are given in any class meeting for which the student is unable to attend. Unless permission is granted by the instructor beforehand, assignments and tests must be completed and submitted to the instructor at the specified date and time.

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

- **Class Activities.** As the primary mode of instruction for this course is class activities, class participation will be required throughout the semester. **There will be no make-up for missed class activities.** Class activities may include, but not limited to:
  - Quizzes (unannounced)
  - Worksheet
  - Teaching peers
  - Presentation
  - Group discussion
• **Homework.** There will be weekly homework assignments. All homework must be turned in at the designated due date. **No late homework will be accepted.** If you miss a class when homework is due, you must arrange to deliver your homework to the instructor before the deadline.

• **Quiz.** There will be unannounced quizzes. Each quiz will take place in the beginning of class. **There will be no make-up for missed quizzes.**

• **Unit Exams** Five unit-exams are given in this course. A unit exam will be 75 minutes in length. **The student must achieve a minimum of 70% of the possible points for each unit exam.** Without this minimum requirement, a passing grade for the course is not possible.

• **Review Problems.** At least a day before each unit exam you will be assigned review problems as preparation. These review problems must be fully and correctly completed before the day of the unit exam in order to take the exam.

• **Retests for Unit Exams.** One retest is allowed without penalty after each unit exam if it is done by the specified retest deadline. The better of the two test scores will count towards your course grade. No retest will be given after the retest deadline. Each retest is arranged by appointment with your instructor.

  To take a retest for a unit exam, all of the following must be met:
  o All review problems (see Review Problems above) must be completed and shown to the instructor.
  o **The student must meet with the instructor to review mistakes made on the original unit exam taken when he or she scored below 70%**.
  o Additional math activities as designated by the instructor must be completed.
  o The retest must be taken by the designated retest deadline.

• **Final Exam.** The final exam will cover the concepts and skills in the entire course. The final exam is two hours in length. **The student must achieve a minimum of 60% of the possible points for the final exam.** Without this minimum requirement, a passing grade for the course is not possible. **If you do not take the final exam, you will automatically receive a grade of F for this course.**

  Retesting for the final exam is available if the 60% minimum is not met and the 70% minimum per unit exam was met. In that event, a retest of the final exam is possible, however, the maximum score of the retest is 60% of the possible points for the final exam.

• **Make-up.** Make-up opportunity for a unit exam or final exam will be possible only upon a timely presentation of a serious and justified explanation of the student’s absence from the class test. The instructor has the right to request documentation of the student’s absence from the class and to determine if the absence from the class test is justified. A make-up test must be taken within one week of the in-class test unless otherwise specified by the instructor.

**Notes:**
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 before the end of the day via email. If the reason is justified, then a make-up exam will be scheduled.

For each student, no more than one make-up exam may be granted.

- **Evaluation.**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Class Activity</td>
<td>10%</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Unit Exams (5)</td>
<td>50%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

- **Course grade.** If the student has achieved a minimum of 70% of the possible points for each unit exam and a minimum of 60% of the possible points for the final exam, then a letter grade for the course will be assigned according to the level of achievement as provided in the table 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>
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<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>
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<tr>
<td>CR</td>
<td>70% or above of the cumulative points possible</td>
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<tr>
<td>NC</td>
<td>Less than 70% of the cumulative points possible</td>
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<tr>
<td>N</td>
<td>See definition listed below</td>
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<tr>
<td>W</td>
<td>Official Withdrawal</td>
</tr>
<tr>
<td>I</td>
<td>See below</td>
</tr>
</tbody>
</table>

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, or F) will be assigned for the course.

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.

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

The I grade is a temporary grade given at the instructor’s option when a student has failed to complete a small part of a course because of circumstances beyond his or her control. A student may qualify for the I grade if (a) they are unable to take the final exam and (b) taking the final exam could possibly raise their course grade. The I grade is given only after
a student’s request and the instructor’s approval.

Learning Resources and Materials


MATH LAB:  La’akea 220 – free drop-in tutorial assistance
Brainfuse Online Tutorial Assistance: [https://windward.hawaii.edu/brainfuse/](https://windward.hawaii.edu/brainfuse/)
OLA (UH online tutoring program): [https://manoa.hawaii.edu/ola/](https://manoa.hawaii.edu/ola/)
Khan Academy Videos: [https://www.khanacademy.org/math](https://www.khanacademy.org/math)
Ka Piko is WCC’s academic support hub. Please visit: [https://windward.hawaii.edu/kapiko/](https://windward.hawaii.edu/kapiko/)

Additional Information

- **Grading on Homework, Class Activities, Quizzes, Unit Exams, and Final Exam.** To receive full marks for problems done on any graded course work, you must show mathematical steps neatly and completely as well as provide clear written explanations, in full sentences, when it is asked for. Partial credit may be awarded.

- **Absences.** It is your responsibility to attend every class meeting. Even if you are absent, you are responsible for those topics, activities, and examples covered in class that you missed. Furthermore, you are responsible for obtaining any important announcements and assignments given during the class you missed. If you are absent frequently or for an extended period of time, contact the instructor as soon as possible to discuss your situation.

- **Practice.** For each chapter, as you read through each section, it is recommended that you write down the words, phrase or math symbols and their meanings, formulas, and properties/rules that are important for each activity. It is important for you to know these.

After each section has been done in class, try all selected problems in EXERCISES at the end of the section. The answers to these selected problems are available at the back of the textbook. Then do as many other problems in the same section as you feel is necessary to help you learn and understand the material and become comfortable with the concepts and/or properties. If you have difficulty solving problems in the exercises, review carefully the discussions in the section and your class notes. If, after checking these sources and trying to find your mistakes, you are still unable to solve a problem correctly, make a note of the exercise number so that you can ask someone for help with that problem. You are also encouraged to reach out to the instructor for additional assistance.

Mathematics is not a spectator sport. To succeed in mathematics, you must do problems. It is often necessary to practice a skill more than the instructor requires. For example, a textbook may provide 50 practice problems in a section and the instructor may assign only 25 of them. However, some students may need to do 30, 40, or all problems. If you are an accomplished athlete, musician, or dancer, you know that long hours of practice are necessary to acquire a skill. Do not cheat yourself of the practice you need to develop skills taught in this course.

- **Laulima.** The syllabus, course calendar, homework schedule, grades, etc. are all viewable through Laulima. Check Laulima regularly to stay up to date.
• **Calculators.** Calculator use is not allowed on class activities and exams. Students may use a calculator to speed up some of the arithmetic in their homework, if needed.

• **Communication.** It is your responsibility to stay in communication with the instructor. If you will be unable to make it to class for any reason, please inform your instructor so it may be determined if the absence is excused. The instructor may need to contact you throughout the semester and will do so via email. It is your responsibility to check your UH email on a regular basis.

• **Electronic Devices.** The usage of electronic devices, including two-way communications devices such as cell phones, is prohibited during class. *(Cell phones must be silenced and put away when entering the classroom.)*

• **Academic dishonesty will not be tolerated.** All suspected cases will be investigated and reported to the Dean. Punishments will vary, but may include failing the course. See [http://windward.hawaii.edu/Policies/](http://windward.hawaii.edu/Policies/) for more information on the UH system-wide student conduct code.

• **MySuccess.** 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 class. If the instructor feels that you are having difficulty in this course within the first few weeks of the semester (e.g. missing class, missing assignments, or low test scores) and that you would really benefit from being connected to resources outside of the classroom, the instructor may refer you to your assigned counselor. Once referred, MySuccess will:
  
  o Call you and send an email to your Hawaii.edu account to let you know about my referral; and
  o Have the MySuccess team follow up with you by phone or email to find out what kinds of help you might need and connect you with the necessary resources to help you devise a strategy for success.

If the instructor refers you to your assigned counselor, please know that the instructor is doing so in an effort to connect you with all of the help you may need to do well this course. Please be advised that your success in this course is of utmost importance.
**Tentative Schedule**

HW sets will be handed out in the first week.

<table>
<thead>
<tr>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
<th>THU</th>
<th>FRI</th>
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<tr>
<td>JUN 18</td>
<td>3.4, 3.5</td>
<td>JUN 19</td>
<td>3.6, 5.7</td>
<td>JUN 21</td>
</tr>
<tr>
<td>HW (2.3-3.3) due</td>
<td>Review</td>
<td>HW (2.3.3) due</td>
<td>Review</td>
<td>EXAM 1 (CH2,3)</td>
</tr>
<tr>
<td>JUN 25</td>
<td>5.4, 5.5</td>
<td>JUN 25</td>
<td>5.7, 6.6</td>
<td>JUN 28</td>
</tr>
<tr>
<td>HW (3.4-5.3) due</td>
<td>Review</td>
<td>HW (3.4-5.3) due</td>
<td>Review</td>
<td>EXAM 2 (CH4,5)</td>
</tr>
<tr>
<td>JUL 2</td>
<td>6.4, 6.5</td>
<td>JUL 3</td>
<td>6.6, 7.7</td>
<td>JUL 5</td>
</tr>
<tr>
<td>HW (5.4-6.3) due</td>
<td>Review</td>
<td>HW (5.4-6.3) due</td>
<td>Review</td>
<td>EXAM 3 (CH6)</td>
</tr>
<tr>
<td>JUL 9</td>
<td>7.5, 7.6</td>
<td>JUL 11</td>
<td>7.7, 8.5</td>
<td>JUL 13</td>
</tr>
<tr>
<td>HW (6.4-7.4) due</td>
<td>Review</td>
<td>JUL 11</td>
<td>7.7, 8.5</td>
<td>JUL 27</td>
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<tr>
<td>JUL 16</td>
<td>8.3, 8.4</td>
<td>JUL 18</td>
<td>8.5, 9.5</td>
<td>JUL 27</td>
</tr>
<tr>
<td>HW (7.5-8.2) due</td>
<td>Review</td>
<td>JUL 25</td>
<td>9.5, 10.1</td>
<td>JUL 30</td>
</tr>
<tr>
<td>JUL 23</td>
<td>9.1, 9.3</td>
<td>JUL 25</td>
<td>9.5, 10.1</td>
<td>AUG 1</td>
</tr>
<tr>
<td>HW (8.3-8.7) due</td>
<td>Review</td>
<td>JUL 25</td>
<td>9.5, 10.1</td>
<td>AUG 3</td>
</tr>
<tr>
<td>JUL 30</td>
<td>9.1-9.5</td>
<td>JUL 25</td>
<td>9.5, 10.1</td>
<td>AUG 3</td>
</tr>
</tbody>
</table>

**Important College Deadlines**

See WCC academic calendar.
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.

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: https://windward.hawaii.edu/Title_IX/.

Windward Community College (WCC) 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 Karla Silva-Park, Mental Health Counselor, at 808-235-7468 or karlas@hawaii.edu or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator at 808-235-7393 or wcctix@hawaii.edu.