Online Syllabus

Math 99 INTERMEDIATE ALGEBRA
5 Credits (N)
WINTER QUARTER 2015
Section OL2, 5616

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OFFICE HOURS: 9:30-10:20 M-Th

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WEB: http://mathtastic.wordpress.com

TEXTBOOK: Algebra: A Combined Course by McKeague, 1st Edition

TECHNICAL REQUIREMENTS:

It is expected that you have access to the necessary technology to be successful in this online course. Necessary technology will include:

- Graphing calculator (TI-83 or TI-84 recommended)
- Access to a computer (at home, school, or work) which you can use for extended periods of time
- Broadband internet access (cable, DSL, or other high-speed)
- A Canvas-compatible browser (Canvas works best with Firefox, but will also work with Safari, Chrome, and Internet Explorer)
- Up-to-date antivirus software is highly recommended, though not required
- If you wish to use the Conferencing feature through Canvas, a headset with a microphone is required

TECHNICAL SKILLS:

To be successful in an online class, you should have the ability to:

- Navigate web sites, including downloading and reading files from web sites
- Be comfortable attaching and downloading documents/files
- Save files in commonly used formats (.doc, .docx, .rtf, .pdf, etc…)
- Copy and paste text and other items
- Save and retrieve documents and files on your computer
- Locate information on the internet using search engines
- Use the rich content editor (this topic is covered in the Canvas Student Quickstart Guide – see the link below)
- Use Conversations in Canvas (this topic is covered in the Canvas Student Quickstart Guide – see the link below)
VIRTUAL/ON-CAMPUS RESOURCES:

- WCC Library – HNR
- Calculators available for check-out in library (third day of classes)
- Course materials on reserve in the library
- Free tutoring in the WCC Math Center – CAS 113
- Online math center - http://math.whatcom.ctc.edu/
- E-tutoring – http://www.eTutoring.org (for instructions on accessing the site, please contact your instructor)
- Counseling and Advising – LDC 116
- Supplementary resources at http://mathtastic.wordpress.com/math-146/
- Canvas Student Quickstart Guide: http://guides.instructure.com/m/8470
- WCC Student Helpdesk – HNR 104, (360)383-3410, studenthelpdesk@whatcom.ctc.edu

TECHNICAL SUPPORT:

Technical support is available by clicking on the Help button at the top right of the screen inside of the Canvas platform. When you click on this button, you will have the option of contacting your instructor, searching the Canvas Guides, contacting the WCC Student Helpdesk to report a problem, consulting WCC eLearning resources, or seeking help from the Canvas community. You can also get help from the Student Helpdesk in person in HNR 104, by calling (360)383-3410, or by e-mailing studenthelpdesk@whatcom.ctc.edu. The Helpdesk is open from Monday to Thursday, 8:00 am to 9:00 pm.

COMMUNICATION:

To contact your instructor, you may schedule an appointment (online appointments can be made for convenience), send a message through Conversations in Canvas, or call or e-mail. E-mail and Canvas contact are my preferred methods of communication, but feel free to contact me using any of the above. I will respond to any messages (voicemail, e-mail, Canvas messages) within two business days. I do not regularly check my messages over the weekend, or on holidays.

COURSE DESCRIPTION:

Study of graphs, functions, inequalities, radicals and complex numbers. Introduction to exponential and logarithmic functions. Also a brief introduction to right triangle trigonometry and its applications. Graphing calculator required.

PREREQUISITE:

Math 98 with a grade of "C" or better, or equivalent.
LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

1. Simplify rational expressions and solve rational equations.
2. Determine the domain and range of a function represented either graphically, numerically or symbolically.
3. Evaluate functions and their sums, differences, products, quotients, and compositions.
4. Analyze the effects of parameter changes on the graphs of functions.
5. Graph and solve simple exponential and logarithmic equations.
6. Solve systems of equations with up to 3 variables (includes linear and non-linear systems using graphing, substitution, elimination, and calculator methods).
7. Apply the basic trigonometric relationships to right triangles.

CORE LEARNING ABILITIES:

WCC's core learning abilities (CLAs) – quantitative literacy, information literacy, communication, critical thinking, and global awareness – are skills taught and reinforced throughout our curriculum. These skills are integral to students' professional and personal lives. This course will give you the opportunity to practice and develop quantitative literacy.

TOPICS:

- Rational functions/expressions
- Functions and function notation
- Introduction to exponential/logarithmic functions
- Systems of equations
- Right triangle trigonometry

STUDENTS WITH DISABILITIES:

Any student with a disability requiring auxiliary aids, services, or other accommodations should contact the Access & Disability Services (ADS) office in the Entry and Advising Center in LDC 116 or call (360)383-3080 or 360.255.7182 (Videophone) to make an appointment. Students with special learning needs should inform the instructor of special accommodations in writing by the end of the first week of classes.

ATTENDANCE:

“Attendance,” as such, is not required for an online course. Course requirements will be met online in the Canvas platform. However, this is not a self-paced class. Online assignments, tests, and discussions have due dates. Therefore, it is recommended that
you familiarize yourself with these dates (available in the Canvas platform), and that you
log in to Canvas at least 2 to 3 times per week, to make sure you don’t miss any due
dates or important announcements. Additionally, you can set up your notification
preferences in Canvas so that you receive a text, e-mail, Facebook notification, or
Twitter notification whenever something happens in the course.

HOMEWORK:

Homework problems are assigned out of the book, and there will be a set of homework
problems for each section we cover. However, homework problems will not be collected
or included in your final grade. It is expected that you will keep up-to-date on the
homework assignments, and that you will ask questions of your instructor, tutors, and/or
other students in the class if you encounter difficulties with the homework problems.

ASSESSMENTS:

There will be an assessment for each major topic that we cover in the class. Work
shown, legibility, and correctness of the answer will weigh heavily in the grade. You are
allowed the use of your calculator and one 3x5” index card with relevant formulas when
completing the assessments. All other items are prohibited, and the use of them will
constitute cheating. You are also prohibited from working with other students or tutors on
the assessments. The assessments can be viewed and submitted within the Canvas
environment. Please check the due dates carefully as late assessments will only be
accepted in the case of a verifiable illness or emergency.

GRADED
DISCUSSIONS:

There will be a graded discussion for each major topic we cover in the class. The
discussion forums are located online in Canvas. Discussion questions have a due date
for responses, so please make sure to familiarize yourself with these due dates, as late
responses will lose 2 points for each day that they are late. You are allowed the use
of any reference materials at your disposal when responding to the discussion
questions. To earn full points for participating in the discussion, you need to post a
substantive response (more than just one or two sentences) to the initial discussion
question, and also post a substantive response to at least one other person in the
class. The goal is for these discussions to feel as much like an in-class discussion as
possible in an online format. Active participation by all students is crucial in order for this
to take place.

GRADING POLICY:

Final grades will be based on 5 assessments and 6 graded discussions. No extra credit
assignments or problems will be given. I do not grade on a curve. Your final grade will be
computed based on the following:

<table>
<thead>
<tr>
<th>Assessments</th>
<th>50 points each, 250 points total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussions</td>
<td>10 points each, 60 points total</td>
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</table>
GRADING SCALE:

Letter grades will be assigned using the following scale:

\[
\begin{align*}
93-100\% &= A \\
90-92\% &= A- \\
77-79\% &= B+ \\
73-76\% &= B \\
70-72\% &= B- \\
67-69\% &= C+ \\
60-66\% &= C \\
50-59\% &= C- \\
0-59\% &= F \\
\end{align*}
\]

If you have registered for S/U grading, a grade of S will be given for an average of 73% or better. Please see the calendar for the last day to register for S/U, N, or W grading.

INCOMPLETES:

An “incomplete” for this course is discouraged. However, for a number of verifiable personal emergencies we may discuss grading options as long as you have shown sufficient effort and satisfactory progress (all assignments up-to-date, 72% average on exams, good effort, and discussion with teacher). If circumstances in your life prevent your succeeding in this course at this time, you should withdraw before the official withdrawal date (check with the Registration Office) and try the course at another time.

WCC ELEARNING

INCLEMENT WEATHER

PROCEDURE:

In the event of inclement weather, all online courses, including the online portion of hybrid courses, will be conducted as scheduled. Closures or delays announced for the Whatcom Community College campus will not apply to online instruction.

A student whose normal access to the internet is interrupted by inclement weather (for example, because of a power outage) is expected to make an effort to meet course deadlines by going to another location with internet access. However, individuals must make decisions to protect their own health and safety if conditions make it unsafe to travel. A student who cannot reach a location with internet access should contact their instructor as soon as possible.

NETIQUETTE:

“Netiquette” refers to guidelines to follow when communicating with others in an online environment. These guidelines help to enhance respect and clarity when sending and receiving messages online. These guidelines can be found at http://www.online.uwc.edu/Technology/onlEtiquette.asp. Please read and review these before beginning to communicate with others in the Canvas environment.

ACADEMIC INTEGRITY:

Academic integrity is taken seriously at WCC. Any and all forms of cheating will result in disciplinary action and will be reported to the Vice President for Educational Services.
For more information, please see the Academic Integrity guidelines in the WCC Student Handbook.

**Tips for Reading Mathematics**

Reading the textbook is important for succeeding academically. This holds true in your math class. However, reading mathematics is different from other types of reading. Getting the most out of a math textbook will require more than just skimming through the text. Below are some tips for helping you get the most from your mathematics text.

- **Focus on concepts, not exercises**
  The most important material in a math textbook is the stuff *between* the problem sets and exercises. If in the past, you have opened your math book only when doing problem sets and exercises (looking at the rest of the book only for examples which mirror the current homework), you must rid yourself of this bad habit now. Instead, set aside a time to read the text when you are not working on a homework assignment. This will enable you to truly focus on the mathematical concepts at hand.

  There are an infinite number of types of mathematics problems, so there is no way to learn every single problem-solving technique. Mathematics is about ideas. The math problems which you are assigned are expressions of these ideas. If you can learn the key concepts, you will be able to solve any type of problem (including ones you have never seen before) involving those concepts.

- **Read the text more than once**
  You cannot read mathematics in the same way as you would read a newspaper or a novel. Many of the ideas presented in a typical college mathematics course have confounded brilliant minds in centuries past. So it is not unexpected that you may have difficulty learning these same ideas if you quickly scan through the reading assignments just once. You should expect to go through each reading assignment several times before you can gain a full understanding of the material.

  **When reading through for the first time, scan for big ideas**
  The first time you read through a chapter of the textbook, you should be thinking to yourself: “What is the main point of the chapter?” Look for the big picture. The details are important, but you need to be aware of the forest first before focusing on the trees.

  **The second time through, fill in details**
  After you get the big picture, you should then look at the details. Take some time to think about each of the definitions, theorems, and formulas you encounter (more on this later).
• **Read with paper, pen, and calculator**
  As you are reading through the text, you should be writing notes. Check calculations. Rewrite definitions and theorems *in your own words*. See if you can come up with your own examples.

• **Read the narrative**
  There is a story to be told in mathematics. What is the progression of ideas being told? Don’t just skip to the formulas and examples.

• **Study the examples**
  What points do each of the examples illustrate? Some examples are extreme cases. Other examples are supposed to illustrate “typical” situations.

• **Read the pictures**
  There are good reasons for the many pictures and graphs in mathematics texts. You should be asking yourself what features of the picture are important to the key concepts. Focus on how each picture illustrates a particular idea.

• **Learn the vocabulary and the language**
  Pay attention to definitions and what they mean. Mathematics language is very precise, and a word may have a different meaning when used in a mathematical context that in everyday use.

• **Learn the theorems and what they mean**
  Theorems are vital bricks to building mathematical knowledge. When you see a theorem in a mathematics text, look at it very closely. What does it say? What do you know from a theorem?

• **Use the index and the appendices. Know what every word means**
  Make sure that you understand all of the words and ideas. If there is a particular word which you do not know (or which you want to know better), look it up. Use the table of contents or the index to help you.

• **Make a note of things you don’t understand; ask for help afterwards**
  Even after following all of the above advice, you might still find some of the ideas confusing. That’s OK. You are studying difficult stuff! If there is something that you don’t understand, mark it. Write down any questions you may have. You then can bring up these issues with your instructor or a classmate.

**College Readiness Attributes**

Statewide Community College Mathematics teachers have assembled a set of standards for success in math classes. Students should possess the following general attributes or characteristics in order to be successful in college-level courses:

1. Take responsibility for their own learning.
2. Attend class regularly and on-time.
3. Attempt all problems assigned for homework.
4. Utilize faculty office hours and college tutoring services.
5. Persevere when faced with time-consuming or complex tasks.
6. Combine a variety of techniques to solve problems.
7. Be willing to try a second path when the first path doesn’t work out.
8. Notice and attend to details.
9. Notice and retain symbols in mathematical work.
10. Communicate **clearly** in written mathematical symbolism.
11. Show work.
14. Pose questions that reveal engagement with the material.
15. Investigate beyond questions posed.
16. Be willing to take risks and be challenged when solving problems and studying the material.
17. Contribute to and benefit from problem-solving activities.
18. Be respectful of others.
20. Work constructively with other students and the instructor.
21. Build on others’ ideas.