CASPER COLLEGE COURSE SYLLABUS

COURSE NUMBER & TITLE:  MATH 1450-01  Pre-Calculus Algebra and Trigonometry

SEMESTER:  Spring 2016

LECTURE HOURS:  5  CREDIT HOURS:  5

CLASS TIME:  9 – 9:50 a.m.  DAYS:  MWTHF  ROOM:  PS 107

INSTRUCTOR’S NAME:  Tracey E. Hollister

E-MAIL:  thollister@caspercollege.edu

INSTRUCTOR’S OFFICE:  PS 129  PHONE:  268-2545

OFFICE HOURS:  See page 7

Course Description:  Elementary algebraic and trigonometric functions and graphing for mathematics, science, and engineering majors preparing for the regular calculus sequence. Includes material in both MATH 1400 and MATH 1405.

Statement of Prerequisites:  An ACT Composite MATH score of 24-25, or a COMPASS exam score in the Algebra domain of 75 -100 or College Algebra domain of 32-64, within the past year; or a C or better in MATH 0930 or MATH 0934. Deletes credit for MATH 1400, and two hours of MATH 1405.

Goals:  The goal of this course is to stress algebraic, graphic and numeric approach to the study of algebraic and trigonometric models that would apply to math, science and engineering majors.

Outcomes:  (From Casper College General Education Outcomes; 1-8)

(#1)Demonstrate effective oral and written communication, (#3) solve problems using critical thinking and creativity, (#6) use appropriate technology and information to conduct research, and (#8) use quantitative analytical skills to evaluate and process numerical data

NOTE: Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.

Course Objectives:  Students should:

1.  Be able to use function concepts including; evaluating, operations, composition, inverses, and transformations.
2.  Solve polynomial, exponential, and logarithmic equations and relate and interpret these solutions.
3.  Be able to graph linear, polynomial, exponential, logarithmic, absolute value, square root, piecewise defined, and rational functions.
4.  Be able to model and interpret real-world problems using polynomial equations or regressions.
5.  Be able to solve systems of equations.
6.  Be able to evaluate trigonometric functions.
7.  Be able to graph trigonometric functions.
8.  Be able to solve right triangles and oblique triangles using Law of Sines and Cosines
9.  Be able to solve trigonometric equations and relate and interpret these solutions.
10.  Be able to verify trigonometric identities.
11.  Be able to apply concepts of trigonometry such as: parametric equations, polar coordinates, vectors, complex number representations OR conic sections.
**METHODOLOGY:** (Please turn OFF all cell phones, tablets, IPhones, Ipods, IPads etc…)  

The first item of discussion in class will be to go over any questions. Due to the nature and sometimes complexity of the problem is essential to prepare your question. In most cases we will not be able to complete an entire problem, but rather start it and/or give hints. Since we will most likely not be able to work entire questions in class I am available in my office for drop in questions for more than 12 hours each week. Therefore use this time to your advantage, bring your work and questions to my office. 😊

***You are responsible for everything taught in class whether present or not. I recommend that you study with the intent to UNDERSTAND and not to just ‘get by.’***

**EVALUATION CRITERIA:**

I. **FROM THE BOOK:** Homework from the book will be assigned daily but will not be collected. Remember you are in college and it is your RESPONSIBILITY to complete the homework, whether or not, I collect it.

Since I am not collecting the assignments it will be the student’s responsibility to correct their own. You may:

   i. Visit me with questions.
   ii. Use the MLC; reference the answer booklet and grade your own
   iii. If time runs short and you cannot possibly do i. or ii. check the odd answers in the back of the book. (It is a good idea to do this for all assignments)

II. **HOMEWORK QUIZZES:** We will have between 10 – 13 paper pencil homework quizzes worth 10 points each that replicate the assigned homework. In most cases you will be able to use your written homework as an aid. However, some quizzes will be without the aid of technology, so prepare yourself! At the end of the semester I will take your top 10 quiz scores.

III. **MML QUIZZES:** We will have between 10-14 pooled homework quizzes worth 20 points each that replicate material you have either seen in this course, or any other pre-requisite course. Each quiz is timed, and will be due Sunday at midnight. There will be no make-up quizzes for any reason, so plan accordingly. At the end of the semester I will take your top 10 quiz scores.

IV. **OTHER QUIZZES:** It is possible to have other in class quizzes that do not allow the use of notes, HW, or technology. Ex. Unit circle quiz.

V. **IN CLASS WORK:** It is possible we may have an in class assignment. These assignments are often based on participation and cannot be made up.

VI. **TESTS:** There will be approximately 4-5 exams and a final. They will be announced at least a week in advance. If you do poorly on a test or miss one completely I will replace your lowest test grade with your final exam score (given it is higher).
**EVALUATION CRITERIA continued:**

* QUIZZES, TESTS, IN CLASS WORK, etc… MUST BE NEAT WITH ALL YOUR WORK SHOWN!!*

Work that is not neat/organized can and will receive an automatic zero. (Also reference HW expectations)

***Grades are determined by:***

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<th>YOURS POINTS</th>
<th>TOTAL – POINTS – IN – CLASS</th>
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**GRADING SCALE:**

| 90 – 100 | A  |
| 89 – 80  | B  |
| 79 – 70  | C  |
| 69 – 60  | D  |
| 59 – 40  | F  |

**REQUIRED TEXT, READINGS and MATERIALS:**

   a. MyMathLab (MML) Access code – this will come with a new book or can be purchased by itself. Having the access code gives you access to an e-book. See hand-out given in class.
2. Internet access. You can access the internet at multiple locations around campus.
3. Loose leaf **GRAPH** and notebook paper.
4. Ruler.
5. Colored pencils or pens.
6. Calculator(s)
   a. Scientific calculator
   b. **NOTE:** You will be asked to demonstrate nearly ALL concepts without the use of a graphing calculator, so do not to become dependent on this tool. Moreover, calculators with a C.A.S., i.e. any graphing calculator, will not be allowed on the exams.

**OPTIONAL MATERIAL:**

1. A graphing calculator: If there is a need for a graphing calculator, I will use a TI-84 calculator, Wolf-Ram, or GSP. It is okay to use a different calculator, however learning new functions will be up to you.
2. 3 ring binder – at least 2.5 inches

**SCHEDULE OF COURSE CONTENT:** See MML.
CLASS POLICIES:

I. Electronics:
   a. iPhones, IPads, IPods, Blackberries, cell phones etc. are to be turned off. If you are expecting an urgent call, please let me know ahead of time.
   
   b. Text messaging, Facebooking, emailing, or any type of ‘updating’ is not allowed for any reason in class.
   
   c. Laptops/tablets may be used in class to take notes, however, if it is found that you are using the laptop for other purposes—it is expected that you will immediately shut down and put it away. If the laptop is disruptive in class (this is at the instructor’s discretion), you will be asked to put it away.

II. Attendance, Preparedness & Participation:
   a. Attendance is crucial to student success. However, being in the seat doesn’t guarantee a passing grade! It is expected that you will have regular attendance. If you know you are going to gone, my best advice for an absence is to see me in my office PRIOR to leaving to make appropriate arrangements.
   
   b. It is important that you not fall behind. Students who get behind on their assignments are often unsuccessful in the course. If something happens in your life that makes it a real hardship for you to meet deadlines, please stop by my office, email me, or call BEFORE you are so far behind you can’t finish the course. I’m here to help you learn and reach your goals, and I’m always willing to work with my students to make that happen.
   
   c. When you’ve missed a class, it is your responsibility to contact classmates and/or see me in my office to get the information you missed. The best place to talk to me about a missed class is in my office.
   
   d. MAKE-UP HW, QUIZZES & TESTS DNE = DO NOT EXIST!!!
   
   e. In case of an emergency: If you are injured, have a family emergency, are called to jury duty or subpoenaed as a witness in a legal action or unable to make it to class for two or more days first contact me immediately and then contact the Vice President of Student Services, GW 412A or 268-2210. Notice will be sent to all your instructors.

III. Last date to change to Audit Status or to Withdraw with a W Grade: Thursday April 14, 2016
STUDENT RIGHTS & RESPONSIBILITIES: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

Academic Dishonesty: (Cheating & Plagiarism) Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

Official Means of Communication: Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly. This is also, where you will find course evaluation links during course evaluation periods.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college’s Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu. The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

What if I need HELP ???

We have a variety of resources on campus:

1. Come to me – ask me any question or stop by just to chat 😊
2. Math Learning Center in PS 104. We are fortunate to have this resource available to us. The MLC has student helpers, staff, videos, extra books and computers to accommodate any learning style.
3. MML – My Math Lab has numerous videos, study tools, step-by-step instructions, extra practice problems, extra tests and quizzes, etc…
4. Internet – search for videos. Some popular sites are:
   a. Khan Academy
   b. That Tutor Guy
   c. Educationalportal.com
   d. Wolf Ram Alpha
5. Ask a friend. Sometimes someone in class can explain it in a different way, so you can understand it better.
6. Go to a past instructor. We all welcome familiar faces.

“My will shall shape my future. Whether I fail or succeed shall be no man’s doing but my own.”
- Elaine Maxwell
**EXPECTATIONS**
Hollister

***Getting a college degree is a JOB that takes time and work. Make it a priority.***

**ASSIGNMENT (HW, quizzes, tests, and all written work) EXPECTATIONS:**
1. **DO** ALL work in pencil - we are all human (I hope so 😊) and make mistakes, thus it is a good idea to use pencil not pen; assignments with scribble and scratch marks are not an acceptable form of collegiate work.
2. **DO** include the original problem if working a problem from a worksheet.
3. **DO** work on a separate sheet of paper when given a worksheet.
4. **DO** number each problem.
5. **DO** skip lines between each problem.
6. **DO** each individual problem vertically, i.e. work in a downward manner.
7. **DO** SYW – Show Your Work
   a. Words of wisdom from a civil engineer and project manager: “Presentation matters, you can be the best technical person in the world and be correct, but if you cannot convey it properly to the right person at the right time, none of it matters.”
8. **DO** use your calculator appropriately.
9. **DO** use graph paper when graphing is required.
10. **DO** use paper – do not try to scrunch it all on the front side of one piece of paper.
11. **DO** underline your final answer with 2 colored lines.
12. **DO** use a ruler where appropriate.
13. **DO** fold all assignments lengthwise in half i.e. fold it so the heading is on the inside and in half, then put your full name on the outside. (This is due to FERPA/privacy laws)

**Work will NOT be accepted if:**
1. It is late.
2. It is done in pen.
3. There is no work when work is requested.

**GENERAL CLASS EXPECTATIONS:** We are all here for the same reason – to learn, master and feel better about our math skills, therefore please **respect one another and every individual’s right to learn.**

1. **DO** turn OFF all cell phones.
2. **DO** sit as close to the door as possible if you are chronically late.
3. **DO** listen. Please be considerate when someone else is asking a question – **listen** – you may learn something you didn’t know.
4. **DO** ask questions. If you have a question while I am lecturing, ask me.
5. **DO** throw away your trash at the end of class, not during.

I am here every day and welcome questions, comments, or just plain conversation – feel free to stop by!

😊 See you there…PS129.
**Welcome**

Below are my Office Hours

*** If you cannot make one of the listed times listed please let me know so we can schedule a different time. ***

<table>
<thead>
<tr>
<th>NAME: Tracey E. Hollister</th>
<th>OFFICE: PS 129</th>
<th>SEMESTER: FALL 2015</th>
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<tbody>
<tr>
<td>DEPARTMENT: Mathematics</td>
<td>EXT: 2545</td>
<td>DIVISION: Physical Science</td>
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<tr>
<th>Time</th>
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<tr>
<td>8 - 8:50 AM</td>
<td>MATH 1400-01 Pre-Calc. Trig. PS 107</td>
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<td>9 - 9:50 AM</td>
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<td>10 - 10:50 AM</td>
<td>MATH 2205-01 Calculus II PS 107</td>
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**NOTE:** I am usually in my office when I am not teaching; please feel free to stop by. 😊