

**READ THIS SYLLABUS CAREFULLY. YOU ARE RESPONSIBLE FOR KNOWING THIS INFORMATION.**

**COURSE:** MATH 116 - Precalculus

Fall 2010

**PREREQUISITE:** Placement test (level 3) or a grade of C- or higher in MATH 101.

**COURSE DESCRIPTION:** This course is a pre-requisite for Calculus I (MATH 122). Calculus I is required for students pursuing a BA in mathematics or a BS with certification to teach secondary school mathematics. In addition it is required for students majoring in computer science, earth science, chemistry, and physics and for students in the engineering transfer program. This course is also suited for students who are pursuing an elementary mathematics major (BS). The major goals of this course are to prepare students for further study in mathematics, especially calculus, in particular:

- a. To solidify students knowledge of a wide range of functions, specifically exponential, power, periodic, polynomial, logarithmic, and rational functions.
- b. To teach students how to apply their knowledge in a range of real world applications.
- c. To Introduce students to a range of approaches to tackle mathematical notions, specifically symbolic, graphical, numerical, and verbal.
- d. To focus on the notion of rate of change, to better prepare students for calculus.

\*Note that some topics have been introduced in previous courses, MATH 099, 101, and 115. Refer students who need to review algebra to Chapter 0 at the beginning of the text. Most students should be familiar with graphing calculators from high school or MATH 101, but some may need to review basic features (Y=, WINDOW, GRAPH, and TABLE)

**Topics:**

- Functions
- Polynomials and complex numbers the fundamental theorem of algebra, rational functions, complex numbers
- Exponential and logarithmic functions
- Polar coordinates, complex numbers
- Systems of equations
- Analytic geometry

**TIME & PLACE:** T & TR 5:15-6:30 pm;

This class meets for 150 minutes of instruction per week; Attendance will be taken.

**TEXTBOOK:**

Precalculus, A Prelude to Calculus by S. Axler, published by Wiley 2009 (ISBN 978-0-470-18072-3)

**Coverage:** In MATH 116 you are responsible for all of the material in Chapters 1-4. The four chapters will be covered in the order they appear in the text. Each section has exercises

and problems. You will be assigned the odd-numbered problems in the "Exercises". Additionally, I may assign examples from the "Problems" section or even-numbered "Exercises" to hand in.

**Calculator Use:** Graphing calculators are required for MATH 116. I will be using one of these in class. Please let me know if you are using some other calculator, and I can help you make adjustments.

**Electronic Devices Policy:** Cell phones, laptops and PDA's are not to be on or used during class, exams, or quizzes unless special accommodations are necessary.

**INSTRUCTOR:** Ms. C. Boys

**OFFICE:** I will hold office hours in the Learning Center, Copernicus 241, 242 or in our classroom if it is available.

**HOURS:** Tuesday and Thursday 4:45-5:15pm and 6:30-7:15pm, Location in Copernicus TBA

**CONTACT:** Call Math Dept. at 832-2835 and leave message or email to boysc@ccsu.edu

**ATTENDANCE:** Regular class attendance is required; you should have no more than 1 unexcused absence. If you do miss a class, then it is your responsibility to find out what you missed so that you do not get behind.

**EVALUATION:**

Minimum averages have been established for each of these grades:

	B+	87%	C+	77%	D+	67%
A	B	83%	C	73%	D	63%
A-	B-	80%	C-	70%	D-	60%

Your grade for the course will be based on the following weights:

Homework	10%
Participation	10%
Average of three tests and quiz average (less one)	55%
Final Examination	25%
Total	100%

**\*NOTE:** There will be NO make-up tests given, so plan accordingly. Students who can show extenuating circumstances may be allowed to make up a test IF arrangements are made prior to the time the test is given.

**Homework** is an opportunity to practice applying concepts learned in class and to communicate mathematical thinking. I will let you know which assignments to hand in.

- Write all homework neatly and legibly (pencil is preferred.) Illegible homework will not be accepted.

- b. Write your name and the due date in the upper right-hand corner of your homework paper.
- c. Clearly label the paper with the chapter/ section number and the page.
- d. For each example, number and write out the original problem before doing any work on the exercise.
- e. When assignment is on more than one sheet of paper, staple the sheets together.
- f. Be sure to submit assignment at the beginning of class the day it is due. Late work is not accepted. If you cannot attend class, you may hand in work ahead of time or have a friend bring your work to class or to my mailbox so I can pick it up before class.
- g. Homework is graded on effort. A grade of 100% (check plus) will be given if all problems and parts to the questions are answered and all work is shown. A grade of 85% (check) will be given if all problems are attempted, but some may not be completed. A grade of 70% (check minus) will be given if problems are missing but there is still at least 70% effort. Less than 70% completion or effort will result in a zero.

**COURSE REQUIREMENTS:** You are expected to attend and participate in class regularly, do all assigned homework, and take quizzes and tests as scheduled. Get in the habit of working systematically, showing and labeling ALL supporting work and identifying your answer. You should work in pencil. If you come for help, bring your homework with you.

\* A general rule for any college course is that you are expected to put in at least 2 hours of work outside of class for every hour in class. **For MATH 116, plan on spending a minimum of 6 hours per week** in addition to time spent in class.

**POLICY ON ACADEMIC MISCONDUCT (CHEATING):** The CCSU honor code for Academic Integrity is in effect in this class. You may find it online at:

<http://web.ccsu.edu/academicintegrity/UndergradAcadMisconductPolicy.htm>. Please read it carefully. As this policy clearly states, plagiarism and other forms of cheating are forbidden. All writing and other creative work you submit in this class must be your own. You will be punished justly if you use any author's phrasings or ideas without citation.

Students found cheating may receive an "F" for the assignment or for the semester.

#### **UNIVERSITY POLICIES:**

1. You must take the final examination at the time specified in the course selection book, **Tuesday, December 14, 2010 from 5 to 7 pm.**

2. **SPECIAL NEEDS:** *Please contact me privately as soon as possible to discuss your specific needs if you believe you need course accommodations based on the impact of a disability, medical condition, if you have emergency medical information to share, or need special arrangements in case the building must be evacuated.*

*I will need a copy of the accommodation letter from Student Disability Services in order to arrange your class accommodations. Contact Student Disability Services, room 241, Copernicus Hall if you are not already registered with them. Student Disability Services maintains the confidential documentation of your disability and assists you in coordinating reasonable accommodations with your faculty.*

3. In the event of a weather emergency which requires curtailment or cancellation of classes, listen to WTIC (1080 AM) or call (860) 832-3333 for the "general snow message."

4. **The last day to drop a course and receive the grade of "W" is Monday, October 25.** From August 31 through October 25, students may withdraw from the course by completing a withdrawal form, available in the Enrollment Center, in Willard Hall or on the Registrar's website at [www.ccsu.edu/registrar](http://www.ccsu.edu/registrar). During this period approvals for withdrawal are not required; however, it is strongly recommended that students consult with their academic advisors prior to deciding to withdraw. Cessation of attendance, notice to the instructor, or telephone calls to the Enrollment Center are not considered official notice of a student's intention to drop the course.

After October 25, withdrawals are allowed only under extenuating circumstances and require approval of the course instructor, department chair and dean of the School of Arts and Sciences.

#### **RESOURCES AVAILABLE:**

1. If you need help, take advantage of your instructor's office hours. Do not wait until just before the first test to do so.

2. The Learning Center is located in Room 241, Copernicus. Free tutoring is available in Room 242, Copernicus, and at other locations on campus. A schedule for hours the Center is open will be posted soon after the beginning of the semester.

3. Form a study group with other students in your section. Explaining solutions to homework problems to each other is a good way to learn.

4. A list of private tutors for hire is available in the math department office, Room 107 Marcus White, 832-2835.