Professor: Dr S.P. Glasby

Course Information

Office:	BU 119 (office hours by appointment, or times listed adjacent to door).
URL:	`http://www.cwu.edu/~glasbys/`
Study guide:	`http://www.cwu.edu/~glasbys/TEACHING.HTM` click on Study Guide link
Lectures:	M-F 11 a.m. BU 111.
Text:	Cohen, Pre-calculus: a problems-oriented approach, 3-7th editions.
Assessment:	Test 1 (5%), Test 2 (5%), Test 2 (40%); Final exam (50%).
Required:	You must average $\geqslant 50\%$ on T1 and T2; o/w take Math 100A/B/C.
Dates:	T1 Mon Sep 26; T2 Tue Sep 27; T3 Fri Oct 28; E Thu Dec 8, 8–10 a.m.
Attendance:	at T1, T2, T3, and the final is required. Please reserve the above dates.
UMC:	Hertz 104; `http://www.cwu.edu/~mathcenter/` for times
SI:	Times and location to be announced.
Phones/Music:	Using phones and iPods in class is not permitted.
Safari:	`http://www.cwu.edu/~regi/course_information.html` for exam time and final grades

Math 153 is the first of a series of two courses on precalculus (Math154 is the second). It aims to introduce students to some basic and ubiquitous mathematics such as solving linear and quadratic equations, graphing functions, understanding polynomial, exponential and logarithmic functions etc. Familiarity with basic algebra and precalculus is essential to every scientific discipline, and quantitative disciplines such as economics, psychology, business. Indeed, such basic knowledge is essential for using spreadsheet macros, reading newspapers, and understanding television programs!

Precalculus I contributes "basic skills" towards your general education program. It requires that you know basic algebra. **You must average at least** 50% **on Tests 1 and 2 to obtain a passing grade in this course.** If you *average* less than 50% consider retaking an algebra course (e.g. Math 100A/B/C) and then retake Math 153 when your are better prepared. One reasonable source for practice tests is `http://www.colorado.edu/sasc/mcneill/courses/math/qr.html`. Review a list of common mathematical errors at `http://www.cwu.edu/~glasbys/`, follow the `teaching` link.

We shall use the graphical calculator TI83 in class, however, you may use another calculator. I will encourage you to perform mental calculations whenever possible, and use the calculator only when it is really necessary. In order to improve quantitative reasoning, the exams will be without calculators. Students who can not quickly and accurately perform simple calculations will be seriously disadvantaged.

We shall cover Chapters 1–5 of the textbook. I should stress though that the lecture notes, not the textbook, form the body of examinable material. I strongly encourage

you to read the relevant parts of the textbook *before* attending lectures, review your lecture notes *after* the lecture, and do all the assigned homework problems! The way to become proficient at most skills, from playing violin to learning mathematics, is to practice. You should spend at least 10 hours per week of private study in addition to the 5 class hours per week. Be an active, not a passive, learner.

If you are unable to attend a lecture, get a copy of the notes from a classmate. I urge you to form your own study groups: you can learn a lot by explaining solutions to a friend, and by hearing solutions. The will be SI (special instruction) sessions TBA. The library has a wealth of useful books. Use them. A list of private mathematics tutors may be obtained from the Mathematics Secretary (BU108). You may also call the Univ. Math Center (509) 963 1834.

After each test I will post adjacent to my office a list of scores and approximate grades, so you can determine your relative position in the class. You should double check the provisional time of the final exam using Safari. The exam will be in our assigned classroom unless otherwise announced.

Students requiring special accommodation, because of a physical or mental disability, should see me in the first week of the course. Also, if you are quite sick or suffer a notable hardship, then please let me know promptly. Claims of lengthy hardship that are disclosed the day before the final exam receive less sympathy. The best way to determine how well you are performing is via your *relative position* in the class – there can be a big difference between students at the top of the C's and those at the bottom. To find out your final grade, log on to Safari.

A brief description of the course content is: real numbers, solving equations algebraically, cartesian coordinates, solving equations graphically, graphing functions, inverse functions, graphing polynomial functions and finding their roots, exponential and logarithmic functions, arithmetic and geometric sequences. The assigned homework will help you to know which sections of the textbook to read before class.

The "course outcome" or "student learning objective" is that passing students have a reasonable mastery of these subjects, and can solve problems theoretically, and when relevant, with the aid of a graphical calculator.

Arithmetic. To understand your grade you must understand the following example. If a student scores 30/40 on an exam worth 30% and 20/50 on an exam worth 70%, then the student's final grade is $\frac{30}{40} \times \frac{30}{100} + \frac{20}{50} \times \frac{70}{100} = \frac{50.5}{100}$.

Calculators not allowed in exams because: (1) all exam problems can be answered without the aid of calculators if the underlying principles are understood, (2) some problems can be solved with calculators without understanding the underlying principles, and (3) not all students have the same calculator, and this introduces biases.

Politeness. I would like to request that no student uses cell phones, ipods, computer games, etc during lectures. These all distract others (and yourself), and detract from a respectful learning environment.