Math 122 Syllabus Fall 2015

Text: Precalculus: Mathematics for Calculus 7th Ed. Stewert, Redlin & Watson

Calculator: TI-83+ or TI-84 HMS: WebAssign

The suggested lecture hours below are based on 4 lecture hours/week for 14 weeks. 6 hours are reserved for tests & review. All sections of Math 122 should include instruction in the use of the TI-83 graphics calculator. The calculus committee recommends 3 in-class exams equally spaced in the semester, for example in the 5th, 9th and 14th weeks. Questions from Optional Sections should not be used on departmental finals exams.

Chapter 1 Fundamentals 8 hours

Sections: 1.2, 1.3, 1.4, 1.5, 1.9, 1.10, 1.11, 1.12

Basic Algebra and analytic geometry. This material should be considered review. It also is a good opportunity to introduce the graphic calculator. Instructors should review common algebraic errors, for example:

 Students should understand

why these are false, and be able to recognize when they have made these errors.

Chapter 2 Functions 9 hours

Sections: 2.1, 2.2. 2.3, 2.4, 2.6, 2.7, 2.8

Optional: “Modeling with functions”, p 237 ⇒ 240

Operations with functions offer another opportunity to review basic use of symbols and algebraic skills in context. It is important that students recognize the difference between f(x+1) and f(x)+1, or f(x+h) and f(x)+h

Chapter 3 Polynomials and Rational Functions 7 hours

Sections: 3.1, 3.2, 3.6

We skip complex numbers; where necessary, observe some equations have no real solutions.

(Optional: 3.3 Dividing Polynomials and 3.4 Real Zeros of Polynomials)

Chapter 4 Exponential and Logarithmic Functions 8 hours

Sections: 4.1, 4.3, 4.4, 4.5

Chapter 5: Trig Functions: Unit Circle Approach 6 hours

Sections: 5.1 ⇒ 5.5 Emphasize the graphs of sine, cosine and tangent functions.

Chapter 6 Trig Functions: Right Triangle Approach 6 hours

Sections: 6.1, 6.2, 6.3 (Optional: 6.5 Law of Sines 6.6 Law of Cosines )

Chapter 7 Analytic Trigonometry 6 hours

Sections: 7.1 ⇒ 7.3

Omit “Expressions of the form A sin x + B cos x” in section 7.2, and product-sum formulas in section 7.3

Calculator Guidelines:

All sections of Math 122 should include instruction in the use of graphic calculators. Instructors should also demonstrate some examples where numerical estimates can be misleading. On departmental finals students are not permitted to use calculators which have symbolic computer algebraic systems, for example, the TI-89 or TI-92. All sections of Math 122 should cover the following calculator operations

Graphing: Y= menu, WINDOW, TRACE, GRAPH ZOOM menu

Use of the FORMAT menu and MODE settings

Table Menu: TBLSET, Using TABLE to display function values; finding more digits than the table displays

WebAssign HMS

All sections of Math 122 are required to include an on-line homework management system.

Students who buy the textbook in the Queens College Bookstore will receive a package including a soft cover loose-leaf version of the complete textbook (Stewert/Redlin/Watson Precalculus: Mathematics for Calculus 7th edition) plus a printed access card with the code which allows them to use the WebAssign HMS. (Access card copied below). Please tell students NOT to throw this card away with the packaging.

**HMS Guidelines**

Website: <http://webassign.net/>

New Instructors can get logins here: <http://webassign.net/> use institution code qc

In addition to on line homework, the WA web site offers an e-book version of our text, a personal study guide for students, and videos of lectures linked to each section of the book. All students will self-enroll in WebAssign.

Students whose instructors have not created their own on-line section in WebAssign can register at the Math 122 Master Section to access these resources, including a set of on-line homework assignments. To do this they enter the following section and code when they register

**Math 122 Master Section Fall 2015 Class Key: qc 0698 8146**

To use WebAssign for your own on-line homework you will need to create a Course in your account for your section. When the section is created the system will give you a class key, which your students will use to enroll in your section. You can retrieve this code later by clicking on “class key settings” in the Class Tools menu on the left.

To create your section: Choose “Create” in the top left menu below “Home”, then “Course”, and select the textbook. Click “enable personal study plan” and the textbook certification. Once you set the start date of the course, students have a 2-week grace period after that date during which they can log in without having paid for access. After you save the course settings, set “How will students be placed on your roster” to self-enrollment.

Students who buy the textbook in the QC Bookstore will receive a printed Access Card, with a code which enables them to enroll in Web Assign. Copy pasted below. Students need two codes to use WebAssign: the class code, either for your individual section or the Master Section code above, AND their individual access code which shows they have paid for the system. Instructors should tell students NOT to throw this Access Card away with the packaging. Students who buy the text elsewhere can pay for access at the website.

