



# **MATH 107 - Precalculus**

4 credits

Instructor: Jessica Deichert

**Course Description:** This course covers the following topics:

- Equations and Inequalities
- Polynomial and Rational Functions
- Exponential and Logarithmic Functions
- Trigonometric Functions
- Trigonometric Identities, Inverse Functions and Equations
- Applications of Trigonometry
- Analytic Geometry

**Prerequisite:** MATH 103 College Algebra, placement by math placement test or instructor approval.

**Course Objectives:** The student will be introduced to the topics above which require certain techniques for solutions. We will develop ideas and methods for applying these techniques leading to a solution or resolution of the question. During the course the application of the graphics calculator will be emphasized.

**Class Schedule:**      MWRF                      7:40am – 8:25am

**Instructor:**    Jessica Deichert

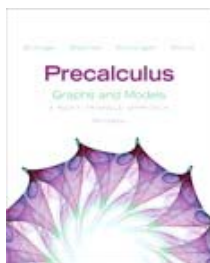
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### Tentative Course Outline:

<i>Chapter</i>	<i>Topics</i>	<i>Timeline</i>
Chapters 1-4	Review Functions	Weeks 1-2
Chapter 5 Sections 5.1-5.6	Exponential Functions and Logarithmic Functions	Week 2-4
Chapter 6 Sections 6.1-6.6	The Trigonometric Functions	Week 5-8
Chapter 7 Sections 7.1-7.5	Trigonometric Identities, Inverse Functions, and Equations	Week 8-11
Chapter 8 Sections 8.1-8.6	Applications of Trigonometry	Week 12-14
Chapter 10 Sections 10.1-10.4	Analytic Geometry Topics	Week 14-16

**Required Text:** *Precalculus 5<sup>th</sup> Edition* by Bittinger, Beecher, Ellenbogen & Penna with MyMathLab online learning software; Pearson publishing



MyMathLab Learning Software Website: [www.mymathlab.com](http://www.mymathlab.com)

### Course Requirements:

The sequential nature of mathematics deems it necessary for students to attend class on a regular basis, therefore one of the course requirements is regular attendance. Learning math is an investment of time. Math is learned best by practice, reflect, and practice some more. Understanding the examples provided by the instructor and textbook is a good first step. However, to truly know the material, you should be able to look at a problem, know how to proceed, and carry out the steps WITHOUT ASSISTANCE. The independent practice and graded homework provide opportunities for you to get to that point. Passing grades on quizzes and tests demonstrate that you have indeed learned the skills taught.

**Homework Assignments:** These are graded assignments that can be done multiple times. Only the highest score will be used. These assignments close at 11:59 PM, Central Daylight Time on the night before the corresponding chapter test. Do the work well in advance. If the assignment is done after the posted due date, 30% will be deducted from your score.

**Tests:** Six graded tests are administered over the semester. Students are allowed one attempt on each test and must be completed in one sitting. If a student leaves the classroom during a test, the test will be collected and graded. Tests must be taken on the day they are given or previous arrangements must be made prior to the test day. **If you miss an exam you must contact me within 24 hours of the missed exam to arrange for a time to make up the exam. Exams must be made up within 72 hours of the original exam time. If you do not contact me within 24 hours, a grade of 0 will be entered for the exam that was missed. Students are only allowed to make up ONE exam per course. The exam grade will be docked 10% per day for late points. *Cheating on tests will not be tolerated. If you are caught cheating, that will result in an automatic 0 for the exam.***



A = 90-100%  
B = 80-89%  
C = 70-79%  
D = 60-69%

### Classroom Policies:

- Respect is to be shown towards the instructor and fellow students in the classroom.
- Attendance and participation is expected. You are responsible for the activities of each class period. If you know of a conflict ahead of time, you are welcome to submit assignments early.
- Show up to class on time and be prepared (pencil, notebook, calculator, etc).
- Learning activities and evaluation will occur in the MyMathLab learning system and requires Internet connectivity.
- **Electronic Devices:** Silence cellular phones, pagers, CD players, radios, and similar devices in the classroom and laboratory facilities. If this is an IVN course, cell phone must be turned off at all times in class! I will not tolerate texting, playing games, watching videos or anything else that is disruptive to the class and others around you. You will be asked once to put the phone away, if asked again you will be asked to leave. (If you are expecting an important phone call, please inform me before class.)
- **Do NOT wear headphones during class or tests. They are not allowed.**

- The syllabus is a living document that is subject to change. All assignments will be confirmed during the class prior to their due date. The instructor reserves the right to allow the class agenda to fluctuate as the course progresses.

**Student Email Policy:** Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

**General Education Goals/Objectives:**

- Goal 2: Demonstrates knowledge and application of technology.
  - Objective 2: Uses electronic resources for course related assignments and information
    - Skill 1: Selects appropriate program on the graphing calculator to solve problems
- Goal 3: Demonstrates the ability to convert, calculate, and analyze a variety of mathematical problems
  - Objective 1: Utilizes mathematical equations to solve problems
    - Skill1: Solves equations and problems using the appropriate method
  - Objective 2: Applies practical application of mathematics to everyday life
    - Skill3: Solves word problems

**Relationship to Campus Theme:** The student will use the graphing calculator to model application problems in nature, economics, science, psychology, etc. Communication with others will be emphasized.

**Academic Integrity:** The academic community is operated on the basis of honesty, integrity and fair play. It is the expectation that all students, as members of the college community, adhere to the highest levels of academic integrity. This means that:

- Students are responsible for submitting their own work. Student work must not be plagiarized.
- Students must not cooperate on oral or written examinations or work together on evaluated assignments without authorization.
- If there is evidence of cheating on an exam the student will receive an F on the respective exam.

**Disabilities and Special Needs:** If you have a disability for which you need accommodation, contact the Learning Center to request disability support services: phone 701-228-5477 or toll-free 1-888-918-5623.