MATH 2412-78431: PreCalculus Syllabus

General Information
College Name North Lake College
Division Mathematics and Natural Sciences
Semester/Term & Year Fall 2019

Instructor Information
Name Katherine Villarreal
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Course Information
Course Number MATH 2412
Section Number 78431
Credit Hours Four (4)
Class Meeting None. Students can work online anytime day or night
Course Title Pre-Calculus Math
Course Description This course consists of the study of algebraic and trigonometric topics including polynomial, rational, exponential, logarithmic and trigonometric functions and their graphs. Conic sections, polar coordinates, and other topics of analytic geometry will be included. (4 Lecture hours)
Course Prerequisites MATH 1316
Program Level Objectives
As developed by the Texas Higher Education Coordinating Board
Program-Level Outcome 1: Communication Skills – to include effective development, interpretation and expression of ideas through written, oral and visual communication.
1. Written: Process and produce effective written communication adapted to audience, purpose, and time constraints.
2. Visual: Effectively interpret visual images or produce effective images.
Program-Level Outcome 2: Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
Program-Level Outcome 3: Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Math 2412 is a Tier 1 course in the Quantitative Reasoning learning category. “Knowledge and skills that are important to your success in other college courses will be introduced and reinforced in Tier 1. The Quantitative Reasoning category promotes the application of mathematics to increase your ability to solve “real-world” problems. When you are quantitatively literate, you can use logic and critical thinking in new ways.” -Catalog of the Colleges of DCCCD
DCCCD Distance Education Courses:
This course is presented through a web-based interactive, multimedia format using MyLabsPlus and can be completed on either a PC or MAC computer. Students use Internet access to participate in classroom studies and to ask questions. There is not a particular time of the day when the class meets. One of the advantages of taking a course in this medium is the flexibility of when students choose to complete the work. For those students who live close to North Lake College, the Math Learning Center is available six days a week for extra one-on-one help with homework.

Measurable Student Learning Outcomes (SLOs)
Upon successful completion of this course, students will:
1. Demonstrate and apply knowledge of properties of functions.
2. Recognize and apply algebraic and transcendental functions and solve related equations.
3. Apply graphing techniques to algebraic and transcendental functions.
4. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
5. Prove trigonometric identities.
6. Solve right and oblique triangles

Course Outline
Chapter 1: Solving Polynomial and Rational Inequalities
Chapter 2: Circles
Chapter 3: Functions
Chapter 4: Polynomial and Rational Functions
Chapter 5: Exponential and Logarithmic Functions and Equations
Chapter 6: Introduction to Trigonometric Functions ~ Review
Chapter 7: Inverse Trigonometric Functions
Chapter 8: Trigonometric Identities
Chapter 9: Applications of Trigonometry
Chapter 10: Polar Coordinates and Polar Equations
Chapter 11: Conic Sections and Parametric Equations
Chapter 12: Systems of Equations and Inequalities
Chapter 14: Sequences and Series

Required or Recommended Materials
Trigsted Algebra and Trigonometry (Recommended)
The package includes the book, Guided Notebook and access to MyLabsPlus. The Text is the 3rd ed, by Kirk Trigsted. MyLabsPlus Access Code and Guided Notebook are required.

ISBN for Textbooks
9780135402207

Evaluation Procedures
The learning outcomes will be assessed in the following manner: homework, quizzes, mastery tests and exams. The final grade will be based on the following:
- Homework/Quizzes: 10%
- Mastery Tests: 35%
- Midterm: 30%
- Final Exam: 25%

FORMULA:
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Homework * 0.09 + Mastery Test Average * 0.35 + Quiz Average * 0.01 + Midterm * 0.3 + Final Exam * 0.25 = Course Grade

The Gradebook listed under “Tools” on eCampus will show you your exam grades and the class average for that exam.

Grading Scale
Course averages for MATH 2412 will be interpreted as follows:

90 – 100% = A; 80 – 89% = B; 70 – 79% = C; 65 - 69% = D; 0 - 64% = F

The instructor reserves the right to make changes in the course requirements as needed throughout the semester. Students will be notified via email of any changes that are to be made. If an adjustment occurs in the number of points that can be generated, the course grade grid will be altered accordingly.

*Students that submit Guided Notes to the instructor for review can earn up to 5 bonus points on each mastery test. Guided Notes are posted in electronic form in MLP. They must be submitted before the mastery test is submitted in order to count towards bonus points.

End of Course Options
1. Receive a grade of an A, B or C
   Receiving an A, B or C grade is considered successful completion of the Precalculus course.
2. Student receives a W.
   Students who decide that they will be unable to complete the course and withdraw on or before the drop date will receive a W. Students repeating the course in a subsequent semester will have to pay tuition again and may have to purchase a new set of materials to obtain the required software license (MyLabsPlus code is good for at least one year if used with the same text.)
3. Student receives an Incomplete (I)
   • A student who has completed all work but the last unit test and final exam successfully in accordance with the Course Calendar AND/OR HAS MEDICAL ISSUES OR OTHER EXTREME CIRCUMSTANCES may be eligible for an Incomplete grade.
   • Only students who have worked consistently and regularly throughout the semester may qualify for an Incomplete.
   • The student needs to make individual arrangements with the instructor for plans to finish the course.
   • A contract for the Incomplete must be included with the instructor’s final grades.
   • Incomplete contracts must be approved by the last week of the term and may be accepted via email.
   • The contract includes a deadline for completion, agreed upon work to be finished and a grade alternative if the contract is not fulfilled.
   • The student does not have to re-enroll in the course nor buy new materials.
4. Student receives a D or an F.

Exams and Assignments
Homework
Each student is required to purchase the online component (called MyLabsPlus) that comes with a new book. Homework is the most important learning tool in a course.
• It reinforces instruction.
• It provides an immediate and personal measure of your competence in the course.
• Always express the answers to stated problems (word problems) in a sentence which identifies what you have determined to be the answer.
• An important part of mathematical literacy is good communication skills.
First, write the problem or the essential facts.
Second, present mathematical sentences showing the progression of your ideas.
Third, present a conclusion using a complete sentence.
More details about what is expected on homework assignments and tests can be found in eCampus.

Tests
There are three types of tests: pretests, mastery tests and proctored exams.

Important!!! All tests (pretests, mastery tests and proctored exams, as well as quizzes) are to be completed without receiving help of any kind. This includes, but is not limited to, working with other people, using notes and/or textbook, looking for answers online, etc. Failure to follow this rule will result in one or more of the consequences listed under Academic Dishonesty.

Pretests:
- Any pretests will be taken at home using MyLabsPlus
  - A pretest is available at this time only for Chapter 6.
  - Any student that recently completed Math 1316 Trigonometry is encouraged to take the optional chapter 6 pretest.
  - The pretest will generate personalized homework specifically for you. This means that you will be allowed to skip any concepts you answer correctly on the pretest.
  - Any student earning at least 75% on the chapter 6 pretest will be allowed to skip chapter 6 and move onto the next chapter. Students earning less than 75% on the pretest will be required to complete the chapter 6 lessons.
  - Students will have only one (1) attempt on any pretests.
  - The pretest will NOT count in the final grade.

Mastery Tests:
- All mastery tests will be taken at home using MyLabsPlus
  - The mastery test will help determine your readiness to take the proctored exams.
    - All mastery tests must be treated like a proctored test (no notes, no book, no help of any kind).
    - You will have only two (2) attempts on each mastery test.
    - The highest grade on each mastery test will be used to determine your average. The mastery test average will be a portion of your final course grade. See Grading Scale below for details.

Proctored Tests – Midterm and Final Exam
OPTIONS FOR TAKING THE MIDTERM & FINAL EXAM:

Option I: Take the midterm and/or final exam at home
To take the midterm or final exam at home you are required to have the following (see ecampus for more details):
1. Web cam – with wide enough lens range to see surrounding testing area
2. Pre-paid USPS Priority Mail 12.5 in. x 9.5 in. envelope ($6.95) - see photo/details in ecampus

Option II: FREE option / no web cam involved or pre-paid envelope involved
The midterm and the final can be taken at any DCCCD college or in a supervised testing situation at a testing site mutually agreed upon. Students must notify the instructor as to which college is best for testing by filling out the student profile form.

**Option III: For students that live outside the DCCCD testing area**

Students who live out of the Dallas area may either use option 1 or arrange for a proctor using the proctor nomination form in the Dallas TeleCollege. There is a link to the proctor nomination form in the "External Links" area of the eCampus classroom.

**Important Note:** The proctored exams are there to ensure that wherever you choose to transfer or whatever university you attend, this class will be accepted. It has come to our attention that some universities are now making students retake certain courses that do not require at least 50% of the course work to be proctored. By using the procedures stated above, this course meets/exceeds the minimum 50% requirement.

- You must contact the instructor via email at least two weeks before you are ready to take either the midterm or final exam so that it can be sent to the appropriate test center (if not taken at North Lake). Exams are usually only sent out on Tuesdays.
- The midterm exam is comprehensive and will be given after Chapter 5.
- The final exam is comprehensive and is given after all assignments have been completed. It covers the entire course, but the majority comes from the second half of the course.
- For the final exam, students must adhere to the test schedule given in the course calendar. A student may take the final exam early ~ contact your instructor.

You may not take the final exam until all the work in MyLabsPlus has been completed.

- The midterm and the final must be taken at a DCCCD college or in a supervised testing situation at a testing site mutually agreed upon or as a proctored exam at home. Students must notify the instructor as to which college is best for testing by filling out the student profile form and emailing the instructor within the first week of class with the desired campus indicated.
- Students who live out of the Dallas area may either take the exam at home as described above or arrange for a proctor using the proctor nomination form in the Dallas TeleCollege. No proctored tests will be sent to a location in Dallas County other than a DCCCD campus test center unless accommodation is being made through Disability Services. There is a link to the proctor nomination form in the “External Links” area of the eCampus classroom.

**Special Note About Midterm and Final Exam:**

If the midterm grade is more than 20 percentage points lower than the average of the first three mastery tests, then the first three mastery test scores will be replaced by the midterm grade.

If the final exam grade is more than 20 percentage points lower than the average of the mastery tests from chapters 7-11, then these mastery test scores will be replaced by the final exam grade.

This is to ensure that students have followed the guidelines set forth in this course.

**Taking Tests in the Testing Center** (L Building)
- Important: Government- or school-issued photo identification is required & enforced.
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- You may not bring personal items into the Test Center. This includes bags, cell phones and pagers.
- Please show courteous and cooperative behavior while using the services provided by the Testing Center.
- **Do not bring children to the testing center.** You must make arrangements for the care of your children prior to your exam date. The police department will be notified of any unattended children.
- **Do not** take any testing materials with you when you leave the Testing Center. This includes the test, answers, charts, scratch paper. These items will be attached to your test.
- **Academic Dishonesty**
  The Dallas County Community District has established procedures and guidelines to protect the security and integrity of all exams. All incidents of academic dishonesty are documented and reported to the instructor, the Director of Testing and the Dean of Student Enrollment.
- **Hours of Operation: Please verify before going to take any exams**
  Monday – Thursday: 8:30 a.m. – 8:00 p.m.
  No tests will be issued after 7:00 p.m. Other cutoff times may be in effect for specific exams by the instructor's direction. All exams collected at 8:00 p.m.

**STEM CENTER**

The STEM Center, located in L137 and L139 provides assistance and resources free to students enrolled in mathematics and developmental mathematics classes at North Lake College.

This is a great place to bring a study group, study quietly, get help with math classes, and use the center’s various resources.

Services offered:
- Tutorial services in all math courses taught at North Lake College
- Computers for use by students enrolled in courses that have an Internet component such as homework systems (i.e., MyLabsPlus, ConnectMath)
- Graphing calculators for use in the center
- Textbooks for use in the center
- A quiet area to study (Just ask one of the tutors)
- Opportunity for students to make up class absences
- Whiteboards space for study groups
- Content workshops covering how to use graphing calculators, course topics, review sessions, and study skills

Contact the STEM Center Manager (Math)

Hours of Operation
Monday – Thursday: 9 a.m. – 8 p.m.
Friday & Saturday: 9 a.m. – 2 p.m.
Manager: Camrunn Beck, Room L135, camrunn.beck@dcccd.edu

**Attendance Policy**

Attendance is an important part of your success. Attendance will be marked each week by recording the time spent in the instructional classroom. Additional time off line, doing assigned homework and taking exams is also expected.

Time Requirements:
- You can expect to spend a **minimum of 24-32 hours per week** on this class.
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- Your success will be diminished if you cannot donate this amount of time to this course.

Institutional Policies
Institutional Policies Link: North Lake College Institutional Policies

Classroom Policies

Cell Phone Use
The use of cell phones or other similar devices is prohibited during testing. You are expected to turn OFF and put away all such devices BEFORE entering the testing center. Any student caught with a cell phone in their possession while taking an exam will be given a zero (0) for that exam. Other disciplinary action may also occur.

Sending Emails
Be sure to put "MATH 2412-section, Last Name" in the subject line for all emails you send. There are several internet classes going on at the same time. By doing this you will be saving yourself and the instructor a lot of time. Also, please include your first and last name as well as your student id number in the message of the email.

ADDITIONAL STUFF

Service Learning
Service Learning (SL) is a nationally recognized program in which students learn and develop through thoughtfully organized service experiences that meet real community needs. Any student that chooses to participate in Service Learning and completes their assignment will be given the opportunity to earn extra points on the written exams. See the Appendix and eCampus for more details about how to participate and the requirements for completion.

eCampus Classroom
Additional information about this course, resources and requirements can be found in the eCampus classroom. It is vital that you log into eCampus periodically so that you can benefit from the many resources contained within.