# University of North Texas at Dallas
## Summer 2015
### SYLLABUS

## MATH 1100-090: College Algebra (3Hrs) & MATH 1100-290: Recitation (1 Hr)

<table>
<thead>
<tr>
<th>Department of</th>
<th>Mathematics and Information Sciences</th>
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</thead>
<tbody>
<tr>
<td>Division of</td>
<td>Mathematics</td>
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</tbody>
</table>

### Instructor Name: Mehmet Celik
### Office Location: DAL2, Room #225
### Office Phone: 972-338 1568
### Email Address: Mehmet.Celik@unt.edu

### Office Hours: Mon. Tue. Wed. Thur. 1:00pm-2:00pm

### Mathematics Lab Hours:

- **Mathematics Lab is located in Building#1, 3rd floor room #336**
- [http://www.untdallas.edu/aas/tutoring/mathlab](http://www.untdallas.edu/aas/tutoring/mathlab)

<table>
<thead>
<tr>
<th>Dates</th>
<th>Days</th>
<th>Time</th>
<th>Tutor</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 18th - June 15th</td>
<td>Mon - Weds</td>
<td>10:00a - 2:00p</td>
<td>Sara Edith R.</td>
</tr>
<tr>
<td>June 15th - July 23rd</td>
<td>Mon - Thurs</td>
<td>1:00p - 4:00p</td>
<td>Sara Edith R.</td>
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</tbody>
</table>

The Mathematics Lab, provides tutoring and homework assistance. The Math Lab is staffed by peer tutors and SI's (Supplemental Instructors) who will answer specific questions, help you get started on problems, check that you are approaching a problem correctly and encourage you through the process.

The Mathematics Lab is equipped with computers and commonly used mathematics software. It is a group setting, so tutors will float from student to student assisting you if you and answering your questions. It is on a walk-in basis, so no appointments are necessary!

### Lecture Location: DAL 1 Room #208
### Lecture Meeting Days & Times: Mon. Tue. Wed. Thur. (10:00am-11:50am)
### Recitation Location: DAL 1 Room #208
### Recitation Meeting Days & Times: Mon. Tue. Wed. Thur. (12:00pm-12:50pm)

### Course Catalog Description:

- Quadratic equations; systems involving quadratics; variation, ratio and proportion; progressions; the binomial theorem; inequalities; complex numbers; theory of equations; determinants; partial fractions; exponentials and logarithms.

### Prerequisites:
Two years of high school algebra and one year of geometry, and consent of department. A grade of C or better in MATH 1100 is required when MATH 1100 is a prerequisite for other mathematics courses. Satisfies the Mathematics requirement of the University Core Curriculum.

### Co-requisites: N/A

### Required Main Text:
- If you have a used book you can also buy a standalone code for My Math Lab.

### Required Homework Assignment Service:
My Math Lab is a homework assignment service, providing online versions of the homework problems found at the end of each chapter.
Registration Information: Students must purchase and register in MyMathLab (MML) by 2nd class of semester. MML is an online course delivery platform through which students can access and complete assignments. Students may access MML at any general access lab on campus. **Students not registered with MML may be administratively dropped with the possibility of no refund.** Students can register to MyMathLab (MML) and start working immediately without making any purchase for one week.

Course ID: celik40198

<table>
<thead>
<tr>
<th>Access to Learning Resources:</th>
<th>UNT Dallas Library:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>phone: (972) 780-3625; web: <a href="http://www.unt.edu/unt-dallas/library.htm">http://www.unt.edu/unt-dallas/library.htm</a></td>
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<tr>
<td></td>
<td>UNT Dallas Bookstore:</td>
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<tr>
<td></td>
<td>phone: (972) 780-3652; e-mail: <a href="mailto:1012mgr@fheg.follett.com">1012mgr@fheg.follett.com</a></td>
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<tr>
<td></td>
<td>UNT Dallas Mathematics Lab:</td>
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<tr>
<td></td>
<td>located in Building#1, 3rd floor #336) <a href="http://www.untdallas.edu/aas/tutoring/mathlab">http://www.untdallas.edu/aas/tutoring/mathlab</a></td>
</tr>
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</table>

**Core Objectives:** This course addresses the core objectives of critical thinking skills, communication skills, and empirical and quantitative skills

**Core Objective 1: Critical Thinking**

To include creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information. Student Learning Outcomes Students will:

1. Explain a given problem, question, or issue;
2. Evaluate the logic and validity of arguments, and the relevance of data and information; and
3. Use investigative and analytical thinking skills to examine alternatives, explore complex questions, and solve challenging problems.

**Core Objective 2: Communication Skills**

To include effective development, interpretation and expression of ideas through written, oral, and visual communication.

**Goal 1: Written Communication** Student Learning Outcomes Students will:

1. Demonstrate an understanding of context, audience, purpose, and disciplinary conventions;
2. Demonstrate content development to convey understanding of ideas;
3. Demonstrate use of sources and evidence to support ideas; and
4. Use language that skillfully communicates meaning to readers.

**Goal 2: Oral Communication**

Student Learning Outcomes Students will:

1. Articulate a central message using supporting material (explanations, examples, illustrations, statistics, analogies, and quotations from relevant authorities);
2. Demonstrate an organized presentation structure to support ideas; and
3. Demonstrates effective verbal and nonverbal delivery.

**Core Objective 3: Empirical and Quantitative Skills**

To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. Student Learning Outcomes Students will:

1. Demonstrate an understanding of and represent mathematical information symbolically, graphically, numerically, and verbally;
2. Perform calculations that are essentially successful and sufficiently comprehensive to solve the problem.
3. Reach competent judgments and draw reasonable and appropriately qualified conclusions based on the quantitative analysis of data.
Learning Course Objectives/Outcomes: At the end of this course, the student will

1. Represent functions in different ways
2. Demonstrate the ability to graph polynomial, rational, exponential and logarithmic functions
3. Demonstrate the ability to model various applications using algebraic and transcendental functions
4. Solve systems of equations using determinants
5. Identify linear and nonlinear equations and solve them using appropriate methods
6. Use Binomial Theorem and partial fractions
7. Distinguish between a relation and a function

Course Outline

Major Course Topics:

- Quadratic equations;
- Systems involving quadratics;
- Variation, ratio and proportion;
- Inequalities;
- Complex numbers;
- Theory of equations;
- Partial fractions;
- Exponentials and logarithms.

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated by email and in-class announcements.

<table>
<thead>
<tr>
<th>Week #1</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td></td>
<td>06/08/2015</td>
<td>06/09/2015</td>
<td>06/10/2015</td>
<td>06/11/2015</td>
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<tr>
<td></td>
<td>Syllabus &amp; BBL</td>
<td>Equations and Inequalities</td>
<td>Equations and Inequalities</td>
<td>Graphs</td>
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<table>
<thead>
<tr>
<th>Week #2</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td></td>
<td>06/15/2015</td>
<td>06/16/2015</td>
<td>06/17/2015</td>
<td>06/18/2015</td>
</tr>
<tr>
<td></td>
<td>Graphs</td>
<td>Functions and Their Graphs</td>
<td>Exam #1 (50 minutes)</td>
<td>Functions and Their Graphs</td>
</tr>
<tr>
<td>Week #3</td>
<td>06/22/2015</td>
<td>Linear and Quadratic Functions</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
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<tr>
<td></td>
<td>06/23/2015</td>
<td>Linear and Quadratic Functions</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
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<tr>
<td></td>
<td>06/24/2015</td>
<td>Polynomials</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
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</tr>
<tr>
<td></td>
<td>06/25/2015</td>
<td>Polynomials</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
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<tr>
<td>Week #4</td>
<td>06/29/2015</td>
<td>Review for Exam #2</td>
<td>Recitation: Review for Exam #2</td>
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<tr>
<td></td>
<td>06/30/2015</td>
<td>Exam #2 (50 minutes)</td>
<td>Recitation: Solving Exam #1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>07/01/2015</td>
<td>Exponential and Logarithmic Functions</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>07/02/2015</td>
<td>Exponential and Logarithmic Functions</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
<td></td>
</tr>
<tr>
<td>Week #5</td>
<td>07/06/2015</td>
<td>Exponential and Logarithmic Functions</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
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<tr>
<td></td>
<td>07/07/2015</td>
<td>Systems of Equations</td>
<td>Recitation: Solving problems &amp; in-class quiz (10 min).</td>
<td></td>
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<tr>
<td></td>
<td>07/08/2015</td>
<td>Review for the Final Exam</td>
<td>Recitation: Review for the Final Exam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>07/09/2015</td>
<td>Final Exam (2hrs) comprehensive</td>
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Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

- **Section Online Homework Assignments** (from MyMathLab) - For each section covered in the course there will be an online Homework assignment on MyMathLab.
  - A Section Online Homework Assignment has a due date.
  - You will have an unlimited number of attempts to complete the assignment by the due date.
  - Section Online Homework Assignments due dates will be announced on the MyMathLab together with the assignment.
  - Section Online Homework Assignments will be graded. Please, see the Grading Matrix below for grade distribution of the assignments.
  - Only the best 15 online homework assignments will be considered toward the total grade at the end of the semester.
  - The due dates will NOT be extended for any reason. **NO EXCEPTIONS.** If you are prone to circumstances that affect your ability to complete assignments as due, work ahead. Technical difficulty, including loss of internet access, is not an excuse for not completing assigned work.
  - **Students should keep a spiral notebook of all online assignments.** **Write work clearly just as you would if the assignments were submitted on paper.**
• **In-class Quizzes** (in class) - An in-class quiz will be held at the last 10 minutes of a Recitation class. The dates for each quiz are pointed on the schedule above.
  - There will be no make-ups for any missed in-class quizzes. Instead, at the end of the semester only the best ten in-class quizzes will be considered toward your total score.
  - The in-class quizzes will consist of questions similar to ones from the Student Worksheets and from Section Online Homework Assignments.

• **In-term Exams** (in class) - There will be two In-term Exams. Each one is by 50 minutes. The date for each exam is pointed in the schedule. See Make-up Policy section for more.
  - Students must take the final exam at the prescribed time; no exceptions. Make necessary arrangements now to attend the final exam.

• **Final Exam** (in class) *Comprehensive Final Exam.* The schedule for the quizzes, tests and exams is attached. Absolutely NO MAKE–UPS!

  | Final Exam: Thursday, July 09, 2015 from 10:00 AM to 12:00 PM |

The student’s grade is determined solely by his/her performance on the evaluation criteria and the grade assignments listed above. *Do not expect Extra Credit assignments!*

**Grading Matrix:**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Value (points or percentages)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>Every <strong>complete</strong> (class meeting+recitation) daily attendance with active class participation is 1 point.</td>
<td>20</td>
</tr>
<tr>
<td>Section On-line Homework Assignments</td>
<td>15 assignments at 4 points each</td>
<td>60</td>
</tr>
<tr>
<td>Weekly In-class Quizzes</td>
<td>10 in-class quizzes at 6 points each</td>
<td>60</td>
</tr>
<tr>
<td>Mid-term Exams</td>
<td>2 Mid-term exams at 70 points each</td>
<td>140</td>
</tr>
<tr>
<td>Final Exam</td>
<td>One comprehensive final exam at 100 points</td>
<td>120</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>400</strong></td>
</tr>
</tbody>
</table>

**Grade Determination:**

- A = 400 – 360 pts; i.e. 90% or better
- B = 320 – 359 pts; i.e. 80 – 89 %
- C = 280 – 319 pts; i.e. 70 – 79 %
- D = 240 – 279 pts; i.e. 60 – 69 %
- F = 239 pts or below; i.e. less than 60%

**Email Policy:** Use your **Blackboard** email account to contact me. You should check your email account on the Blackboard every day. You are responsible for any information that I send out via email. Due to privacy rights, I will not discuss grades over the phone. I will only answer emails from your **Blackboard** account.

**Calculator Policy:** A graphing calculator: TI-83, TI-84 or equivalent is required. Calculators with CAS.
(Computer Algebra System) are not permitted. Examples of calculators that are not allowed: TI-89, TI-92, HP-48 or any others which are capable of symbolic algebra.

**University Policies and Procedures**

**Students with Disabilities (ADA Compliance):**  
The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Students’ with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. Grades assigned before an accommodation is provided will not be changed as accommodations are not retroactive. For more information, you may visit the Student Life Office, Suite 200, Building 2.

**Student Evaluation of Teaching Effectiveness Policy:**  
The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

**Assignment Policy:**  
There will be no make-ups for any missed in-class quizzes. Instead, at the end of the semester only the highest seven in-class quizzes will be considered.

**Exam Policy:**  
Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook). Specifically, in the case of injury or illness, you need to provide a note from a health care professional affirming date and time of a medical office visit regarding the injury or illness and stating that you should not be in class that day. You must notify me no later than the end of the second working day after the missed exam.

**Academic Integrity:**  
Academic integrity is a hallmark of higher education. You are expected to abide by the University’s code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University’s policies and procedures. Refer to the Student Code of Academic Integrity at [http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs%20Education%20and%20Funding%20%2002%20Code%20of%20Academic_Integrity.pdf](http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs%20Education%20and%20Funding%20%2002%20Code%20of%20Academic_Integrity.pdf) for complete provisions of this code. In addition, all academic work submitted for this class, including exams, papers, and written assignments should include the following statement: On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.

**Bad Weather Policy:**  
On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website [www.unt.edu/dallas](http://www.unt.edu/dallas). Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

**Attendance and Participation Policy:**  
The University attendance policy is in effect for this course. Class attendance and participation is expected because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent.
• Excessive absences, more than 3 days of classes, may result in being dropped from the course for nonattendance with a grade of WF.
• Before you decide dropping from the course I strongly suggest you to first discuss it with me.

For security measures once a student signs an attendance sheet she/he cannot leave the class without professor’s permission.
• If a student needs to leave the class earlier she/he should talk to the professor before the class; the student should leave the classroom quietly.
• If a student has to leave the class (for example in case of a family emergency or a similar situation) the student must invite the professor politely out of the classroom to explain the situation.

Diversity/Tolerance Policy:
Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Center for Student Rights and Responsibilities as the instructor deems appropriate.

Copyright Policy:
The handouts used in this course are copyrighted. By “handouts,” I mean all materials generated for this course, which include but are not limited to syllabi, lecture notes, quizzes, exams, in-class materials, review sheets, projects, and problems sets. Because these materials are copyrighted, you do not have the right to copy and distribute the handouts, unless I expressly grant permission.

Other Policy:
Classroom Etiquette:
Appropriate behavior is expected of all students taking this course.
• Arrive to class promptly and do not leave until the scheduled ending time of the class.
• If you must arrive late or leave early, please do so as discreetly as possible and take a seat near the door.
• Turn off all non-medical electronic devices such as pagers, cell phones, laptops, etc. Take off the headphones.
• Do not read newspaper or work on unrelated assignments during class.
• I prefer that you not eat during class.

Grade Assignment:
The student course grade is assigned according to the evaluation criteria and grading assignment stated on this syllabus.
• The grade is completely objective and is determined solely by student performance on each of the evaluation criteria (in-term exams, in-class quizzes, on-line quizzes, and the final exam).
• Do not expect extra credit work or bonus grade assignments.

Student Behavior:
Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT.
• Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Student Life Center to consider whether the student’s conduct violated the Code of Student Conduct.
• The university’s expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at http://dallas.unt.edu/sites/default/files/page_level2/pdf/policy/7.001%20Code%20of%20Student%20Rights%20Responsibilities%20and%20Conduct.pdf