# MATH 13 14 + DMAT 0 3 1 5 Syllabus

Cedar Valley College

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Instructor Information
Instructor Information will be available on the first day of class.
Name: TBA
DCCCD Email: TBA
Office Phone: TBA
Office Location: TBA
Office Hours: TBA
Division Office and Phone: STEM Division, M217, 972-860-5211

Course Information
Course Title: College Algebra + Developmental Math Algebra Support
Course Number: MATH 13 14 + DMAT 0 3 1 5
Section Number: TBA
Semester/Year: Spring 20 20
Credit Hours: 3
Class Meeting Time/Location: This course can be completed entirely online; no campus visits are required.

Certification Date: February 3, 2020

Last Day to Withdraw: April 16, 2020

**Course Prerequisites**
An appropriate assessment test score or DMAT 0 3 0 5

**Course Descriptions**

**MATH 13 14 Course Description**
This course is a study of relations and functions including polynomial, rational, exponential, logarithmic, and special functions. Other topics may include complex numbers, systems of equations and inequalities, theory of equations, progressions, the binomial theorem, matrices and determinants, mathematical reasoning skills, sequences and series, and applications.

**DMAT 0 3 1 5 Course Description**
This course is a study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations.

DMAT 0 3 1 5 is designed to support underprepared students in successful completion of MATH 13 14. Students should expect to spend 10 or more hours each week working productively in ALEKS.

**Required Course Materials**

**ALEKS 3 60 Access Code**
All work for the course is completed in ALEKS. The ALEKS 3 60 Access Code will provide access to ALEKS, which includes an electronic copy of the text, video instruction, and many other helpful features.

ISBN: 9781259722189

**Temporary Access to ALEKS**
ALEKS provides students temporary access to ALEKS for a two-week period. Once the temporary access expires, students will be locked out of their ALEKS account until a
regular Student Access Code is purchased. It is highly recommended that students purchase the regular Student Access Code before the two weeks expire to prevent interruptions in their ALEKS account. The availability of temporary access will depend on its ethical use by instructors and students, and may be discontinued at the discretion of ALEKS at any time. Students completing the entire course using temporary access will receive a grade of F regardless of course performance. An ALEKS 3 60 Access Code must be purchased in order for students to receive a grade based on course performance.

Note: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Technology Requirements**

Students must have an active e-mail account and regular access to a computer, other than a Chromebook, with a reliable internet connection and an integrated or USB connected Webcam. Students with a Chromebook will need to make arrangements to take Comprehensive Knowledge Checks on campus in the Math Resource Center or Collaborative Learning Center during their hours of operation, or use another computer with a reliable internet connection and a webcam.

**Optional Course Materials**

**Calculator**

Graphing calculators (TI-83/84) are recommended in MATH 13 14. You will have free access to a graphing calculator in ALEKS on selected questions.

**Textbook**

An eText is included with the ALEKS 3 60 Access Code. Students also have the option of purchasing a loose leaf copy of the text through the Menu in ALEKS. Students wishing to purchase a hard copy of the text should refer to the following information:

- **Author:** Miller/Gerken
- **Title:** College Algebra
- **Edition:** 2nd Ed.
- **Publication Year:** 2016
- **Publisher:** McGraw-Hill
- **ISBN:** 9780078035623
Course Outline
The course begins with an Initial Knowledge Check (IKC). ALEKS uses this information to award you credit for topics you already know, and determine what you are most “Ready-to-Learn.”

There are a total of 360 Topics in the course consisting of 99 Prerequisite Topics and 261 Goal Topics. Each week you will work on a designated set of both Goal and Prerequisite Topics from the following categories:
- Course Readiness
- Algebra and Geometry Review
- Equations and Inequalities
- Graphs and Functions
- Polynomial and Rational Functions
- Exponential and Logarithmic Functions
- Systems of Equations and Matrices.

As you progress through the course, you will encounter a Progress Knowledge Check each time you have worked in ALEKS for 5 hours and learned 20 topics. Progress Knowledge Checks are used to confirm understanding of recently learned material. While Progress Knowledge Checks are not used to calculate your grade in the course, your performance can impact the number of topics you need to complete.

Graded Work for MATH 13 14
The tables below provide a summary of the graded work in this course and an explanation of how your final course grade will be calculated. The student enrolled in the course must be the person completing course work.

Students should expect to spend a minimum of 10 hours each week working in the course.

Summary of Graded Work

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Percentage of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Topics</td>
<td>45%</td>
</tr>
<tr>
<td>Comprehensive Knowledge Checks</td>
<td>55%</td>
</tr>
</tbody>
</table>

**TOTAL: 100%**
Throughout the course, your current grade can be found in your ALEKS Gradebook. The overall average represents your current average, however, any items completed
prior to their due date will not be included in your current average until the due date
occurs.

**Final Grade**

<table>
<thead>
<tr>
<th>Percentages</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>80-89.9%</td>
<td>B</td>
</tr>
<tr>
<td>70-79.9%</td>
<td>C</td>
</tr>
<tr>
<td>60-69.9%</td>
<td>D</td>
</tr>
<tr>
<td>0-59.9%</td>
<td>F</td>
</tr>
</tbody>
</table>

**Description of Graded Work**

**Weekly Topics**
Weekly Topics open at 12am on Mondays and are due at 11:59pm the following Sunday. On
the due date, you will be given a grade based on the percentage of Goal Topics you
learned/mastered for the week. For example, if a week has 20 Goal Topics and you
learn/master 16 of them, your grade for that week’s topics would be 16/20=80%.

**Comprehensive Knowledge Checks**
A Comprehensive Knowledge Check (CKC) is designed to assess your retention of topics
learned in the course. This assessment will begin with your most recently learned topics, then
branch out to determine the number of topics you have mastered in the entire course. You will
be asked no more than 30 questions and you may use your notes. There is no time limit on a
CKC, but CKCs must be completed by their due date.

Comprehensive Knowledge Checks are taken in ALEKS. Students must download the ALEKS
Lockdown Browser and have a government or school-issued photo ID and a webcam. Students
without a clear photo ID or not visible in the webcam during the entirety of the assessment will
receive a score of zero. Extensions will not be granted for technical difficulties.

Comprehensive Knowledge Checks may be taken on campus in the Math Resource Center or
Collaborative Learning Center during their hours of operation if you do not have access to a
computer with the necessary Technology Requirements.

All Comprehensive Knowledge Checks should be completed without outside assistance – this
includes apps, websites, or other people. Students committing/guilty of academic dishonesty –
having others complete course work or using apps, online sites, or help from others – will
receive a failing grade in the course.
The instructor reserves the right to require on-site testing at any time during the course.

**ALEKS Lockdown Browser Information**
Please download the [ALEKS Lockdown Browser](#) (LDB) prior to beginning a CKC. After downloading the LDB, please check the LDB and your webcam. For technical issues, consult these [Troubleshooting Tips](#) or contact [ALEKS Customer Support](#).

**CKC Grading Information**

<table>
<thead>
<tr>
<th>CKC</th>
<th>Grading Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>CKC1</td>
<td>Students showing mastery of 94 topics or more on CKC1 will receive a grade of 100 for CKC1. The grade for all others will be the number of topics mastered on CKC1 out of 94.</td>
</tr>
<tr>
<td>CKC2</td>
<td>Students showing mastery of 191 topics or more on CKC2 will receive a grade of 100 for CKC2. The grade for all others will be the number of topics mastered on CKC2 out of 191.</td>
</tr>
<tr>
<td>CKC3</td>
<td>Students showing mastery of 271 topics or more on CKC3 will receive a grade of 100 for CKC3. The grade for all others will be the number of topics mastered on CKC3 out of 271.</td>
</tr>
<tr>
<td>CKC4</td>
<td>Students showing mastery of 360 topics on CKC4 will receive a grade of 100 for CKC4. The grade for all others will be the number of topics mastered on CKC4 out of 360.</td>
</tr>
</tbody>
</table>

**Graded Work for DMAT 0 3 1 5**
Assessment of your performance in DMAT 0315 is based on the number of topics of which you show mastery on CKC4. Your grade for DMAT 0 3 1 5 will be CR (credit) or NC (no credit.) Students showing mastery of 180 Topics or more on CKC4 will receive credit for DMAT 0 3 1 5. Students showing mastery of fewer than 180 Topics on CKC4 will not receive credit for DMAT 0 3 1 5.

**Course Calendar**
All students are expected to adhere to course deadlines and due dates; extensions will not be granted.

<table>
<thead>
<tr>
<th>Graded Work</th>
<th>Description of Graded Work</th>
<th>Due Date</th>
<th>Percentage of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wk1 Topics</td>
<td>8 Goal Topics with up to 15 Prerequisite Topics</td>
<td>Jan. 26</td>
<td>3%</td>
</tr>
<tr>
<td>Wk2 Topics</td>
<td>18 Goal Topics with up to 21 Prerequisite Topics</td>
<td>Feb. 2</td>
<td>3%</td>
</tr>
<tr>
<td>Graded Work</td>
<td>Description of Graded Work</td>
<td>Due Date</td>
<td>Percentage of Final Grade</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------------------</td>
<td>----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Wk3 Topics</td>
<td>18 Goal Topics with up to 14 Prerequisite Topics</td>
<td>Feb. 9</td>
<td>3%</td>
</tr>
<tr>
<td>CKC1</td>
<td>94 Topics = 100%, open Feb. 8</td>
<td>Feb. 11</td>
<td>5%</td>
</tr>
<tr>
<td>Wk4 Topics</td>
<td>18 Goal Topics with up to 6 Prerequisite Topics</td>
<td>Feb. 16</td>
<td>3%</td>
</tr>
<tr>
<td>Wk5 Topics</td>
<td>18 Goal Topics with up to 7 Prerequisite Topics</td>
<td>Feb. 23</td>
<td>3%</td>
</tr>
<tr>
<td>Wk6 Topics</td>
<td>18 Goal Topics with up to 9 Prerequisite Topics</td>
<td>Mar. 1</td>
<td>3%</td>
</tr>
<tr>
<td>Wk7 Topics</td>
<td>18 Goal Topics with up to 3 Prerequisite Topics</td>
<td>Mar. 8</td>
<td>3%</td>
</tr>
<tr>
<td>CKC2</td>
<td>191 Topics = 100%, open Mar 7</td>
<td>Mar. 10</td>
<td>10%</td>
</tr>
<tr>
<td>Wk8 Topics</td>
<td>18 Goal Topics</td>
<td>Mar. 22</td>
<td>3%</td>
</tr>
<tr>
<td>Wk9 Topics</td>
<td>18 Goal Topics with up to 2 Prerequisite Topics</td>
<td>Mar. 29</td>
<td>3%</td>
</tr>
<tr>
<td>Wk10 Topics</td>
<td>18 Goal Topics with up to 6 Prerequisite Topics</td>
<td>Apr. 29</td>
<td>3%</td>
</tr>
<tr>
<td>Wk11 Topics</td>
<td>18 Goal Topics</td>
<td>Apr. 12</td>
<td>3%</td>
</tr>
<tr>
<td>CKC3</td>
<td>271 Topics = 100%, open Apr. 11</td>
<td>Apr. 14</td>
<td>15%</td>
</tr>
<tr>
<td>Wk12 Topics</td>
<td>18 Goal Topics with up to 7 Prerequisite Topics</td>
<td>Apr. 19</td>
<td>3%</td>
</tr>
<tr>
<td>Wk13 Topics</td>
<td>18 Goal Topics with up to 6 Prerequisite Topics</td>
<td>Apr. 26</td>
<td>3%</td>
</tr>
<tr>
<td>Wk14 Topics</td>
<td>18 Goal Topics with up to 1 Prerequisite Topic</td>
<td>May 3</td>
<td>3%</td>
</tr>
<tr>
<td>Wk15 Topics</td>
<td>18 Goal Topics with up to 2 Prerequisite Topics</td>
<td>May 10</td>
<td>3%</td>
</tr>
<tr>
<td>CKC4</td>
<td>360 Topics = 100%, open May 11</td>
<td>May 15</td>
<td>25%</td>
</tr>
</tbody>
</table>

Note: Students who do not learn all topics each week may find they have more Prerequisite Topics in future weeks than shown above.

**Attendance and Your Final Grade**

Attendance is required and can affect your grade in this course.
- Only your instructor can excuse an absence.
- Students are allowed two unexcused absences.
- Students more than 15 minutes late or leaving more than 15 minutes early will be counted absent.
• Excessive absences will impact the maximum grade possible in the course, regardless of performance.

<table>
<thead>
<tr>
<th># of Absences</th>
<th>Maximum Possible Overall Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-8</td>
<td>B</td>
</tr>
<tr>
<td>9-16</td>
<td>C</td>
</tr>
<tr>
<td>17+</td>
<td>D</td>
</tr>
</tbody>
</table>

**Late Work Policy**

All students are expected to adhere to course deadlines and due dates; late work is not accepted.

**Certification Policy**

Students must attend and participate in their on-campus or online course(s) in order to receive federal financial aid. Instructors are required by law to validate attendance in order for students to receive financial aid.

To be certified as attending on campus mathematics courses, students must attend class AND do one of the following prior to the Certification Date: a) complete the Initial Knowledge Check in ALEKS; or b) complete the Instructor Assigned Knowledge Check upon transferring previous work. Students should contact the instructor with any questions regarding what constitutes the Initial Knowledge Check or Instructor Assigned Knowledge Check.

Failure to show proof of attendance in the course prior to the Certification Date can affect Financial Aid.

**Withdrawal Policy**

Please consult your instructor before withdrawing from this course, visit the [Dropping or Withdrawing From Classes](#) webpage.
Instructor Policies
If a student experiences a situation during the course which prevents the student from working or negatively affects the student's performance, it is the responsibility of the student to contact the instructor immediately for guidance. Notifying the instructor of such a situation at the end of the semester is not sufficient and will not result in an extension.

Institutional Policies
Institutional Policies relating to this course can be accessed using the link below. These policies include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more.

Cedar Valley Institutional Policies

Student Learning Outcomes
MATH 13 14 Student Learning Outcomes

Texas Higher Education Coordinating Board (THECB) Student Learning Outcomes for MATH 13 14
Upon successful completion of this course, students will:
1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices.

Cedar Valley Student Learning Outcomes for MATH 13 14
1. Classify and manipulate functions and their graphs. (THECB #s 1 & 3)
2. Find the factors and zeroes of polynomials with real coefficients. (THECB #s 2 & 4)
3. Solve exponential and logarithmic equations including applications to growth and decay. (THECB #2)
4. Use matrices to solve systems of equations and application problems. (THECB #5)

DMAT 0 3 1 5 Student Learning Outcomes
Texas Higher Education Coordinating Board (THECB) Student Learning Outcomes for DMAT 0 3 1 5

Upon successful completion of this course, students will:
1. Define, represent, and perform operations on real and complex numbers.
2. Recognize, understand, and analyze features of a function.
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value, polynomial, radical, and rational equations.
5. Identify and solve absolute value and linear inequalities.
7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines

Cedar Valley Student Learning Outcomes for DMAT 0 3 1 5

1. Solve polynomial equations by factoring. (THECB #4)
2. Simplify rational expressions and solve rational equations. (THECB #3&4)
3. Graph and analyze linear equations and linear inequalities. (THECB #2)
4. Solve absolute value equations and inequalities. (THECB #4&5)
5. Simplify radical expressions and solve radical equations. (THECB #3&5)
6. Solve quadratic equations. (THECB #4)

Texas Core Objectives

The College defines essential knowledge and skills that students need to develop during their college experience. These general education competencies parallel the Texas Core Objectives for Student Learning. In this course, the activities you engage in will give you the opportunity to practice two or more of the following core competencies:

1. Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. Communication Skills - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication
3. Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
5. Personal Responsibility - to include the ability to connect choices, actions, and consequences to ethical decision-making
6. **Social Responsibility** - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

MATH 13 14 develops Critical Thinking, Communication, and Empirical and Quantitative Skills by requiring students to solve and analyze applications of various functions and systems of equations.