COLLIN COLLEGE

COURSE SYLLABUS SPRING 2020

Course Information

Course Number: MATH 1314

Course Title: College Algebra

Course Description: In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Graphing calculator required. Lab required.
Note: Students may take either MATH 1314 or MATH 1414 but not both.

Course Credit Hours: 3
   Lecture Hours: 3
      Lab Hours: 1

Placement Assessments: Prior to enrolling in this course, the student must meet TSI college-readiness standard for Mathematics or equivalent. MATH 1314, MATH 1324 or MATH 1342

Prerequisite: TSI placement or equivalent

Student Learning Outcomes:
- **State-mandated Outcomes:** 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. (Critical Thinking, Communication Skills)
   2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations. (Empirical/Quantitative Skills, Critical Thinking, Communication Skills)
   3. Apply graphing techniques.
   4. Evaluate all roots of higher degree polynomial and rational functions. (Empirical/Quantitative Skills)
   5. Recognize, solve and apply systems of linear equations using matrices. (Empirical/Quantitative Skills, Critical Thinking, Communication Skills)

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required affording equal opportunity. It is the student's responsibility to contact the ACCESS office to arrange for appropriate accommodations. (CPC: B-335 or 972.548.6816, PRC: F-144 or 972.881.5950, SCC: D-140 or 972.881.5898 (V/TTD: 972.881.5950)) See the current *Collin Student Handbook* for additional information.

Instructor's Name: Dr. Katerina Vishnyakova
Office Number: Lawler Hall LH 122 (inside of faculty suite LH117) at Frisco Campus
Office Hours: **MW**   9:00 – 10:50 am; 12:20 – 12:50 pm
                              W   5:45 – 6:45 pm
                              TR   8:45 – 9:45 am
                              Friday   and other times by appointment **ONLY**
Phone Number: (972) 377-1532
In case of emergency, contact the Instruction Office at PRC LH158 (972) 377-1554, or contact your instructor by email as listed below.
Email: kvishnyakova@collin.edu. You can e-mail me with homework questions or concerns. **Send all e-mail correspondence to me through Collin College Mail.** I cannot discuss any class or confidential information with students through external e-mail addresses. E-mails from external accounts will be checked last and might not be answered at all if subject matter is considered confidential. Always *include your full name, course number and the reason for the e-mail in the subject line* when writing e-mails. Please allow 24 hours for instructor's response. Please address me as "Professor" or "Doctor" in your e-mails. Any e-mails that include texting jargon rather than formal language (for example, "u" instead of "you") will not be answered.
Website: http://faculty.collin.edu/kvishnyakova

Class Information:
          Section Number: P06
          Meeting Times: Mondays, Wednesdays 11:00 am – 12:15 pm
          Meeting Location: Frisco campus, LH 116

Census Day: February 3, 2020

College Repeat Policy: Beginning Fall 2016, Texas residents attempting a course more than twice at Collin College are subject to regular tuition plus an additional $50 per semester credit hour. Refer to the Collin College website for a complete list of courses exempt from the course repeat tuition and how to qualify for exemptions from the higher tuition rate: http//www.collin.edu/gettingstarted/register/withdrawal.html

Textbook: *College Algebra*, Custom 2nd Edition by Julie Miller available **Only** at Collin's Bookstores, McGraw-Hill, ISBN: 0077836340.

Supplies: TI Graphing calculator required and the TI 83, TI 83 Plus, or TI 84 is preferred. TI-89 or TI-92 graphing calculators are not allowed. Calculators with a computer algebra system (CAS) **will not be permitted**.

Course Requirements: Attend class**,** complete homework assignments**,** complete labs, and complete required exams.

Course Format: Lecture, lab, and guided practice.

Course Resources: The College provides group tutoring and a Math Lab (F148) at no charge at each campus to support student success in this class. Students are required to purchase a software license for use in this class.
- You can check out graphing calculator for 4 hours in the library on a daily basis.
- The ACCESS office (F144) also provides group and online tutoring services.
- Your instructor is available for assistance during the office hours listed above, or other times by appointment.

Attendance Policy: Attendance is expected of all students. I strongly believe that attending and participating in class is a major factor in students' success. There are NO extra points for attendance or penalty for being absent. If a student is unable to attend, it is his/her responsibility to obtain missed material/notes. *Missing a class is not an excuse to be unprepared for quizzes or not knowing the material.* If there is no contact from a student regarding an absence initiated within a week after the absence, the student will receive a zero on any material or assignment that was missed. Please see the schedule of classes for the last day to withdraw from the course with a grade of W.

Attendance will be taken each class period. **You will receive a tardy mark if you leave early or come in later than 5 minutes after the class starts**. The time will be decided by the clock found on the wall in the classroom. If the clock is off, the time will be determined by the instructor's watch. **Three tardy marks are equivalent to an absence**. Disruptive or disrespectful behavior of any kind will not be tolerated. If you cannot participate positively in class, you will be asked to leave. In accordance with section *Classroom Dismissal by Faculty Member* "If a student is disruptive in class … a faculty member has the right to temporarily dismiss the student from class …"

I understand that at times there are **unexpected one-time events** (for example, traffic accident, family issues). I suggest that you have the contact information of one of your peers to inform them on such occasion. It should be considered as an emergency situation and not as a regular excuse for being late. If you arrive to class late, please be discreet. Enter the class quietly holding the door until it is completely closed, have all your notes and supplies in your hands so you don't need to distract your peers by taking objects from your bag. Please take the back seat in the classroom. **If an assignment is due at the beginning of the class, don't try to hand it to me when you join the class.** We can discuss that after the class. Please consider that you might NOT be able to submit it.

Policy on missed tests and assignments: Make-up examinations will NOT be given. The course calendar provides the due dates for all upcoming assignments and tests, and it is student's responsibility to know the due dates and be in class on time to turn in work and take the test. If you know in advance that you'll miss the day when the test is scheduled, notify your instructor so that special arrangements can be made (for example, you may be allowed to take the test a day earlier.) If for any reason you miss one test during semester, your final exam score will replace the zero score for the test. Notify the instructor immediately if an unexpected event impacting your ability to attend class and/or take the test occurs.

There are some <u>class rules regarding missed coursework</u> and exams that students should be aware of:
1. Class policy is that no make-up exams/assignments will be given automatically. If a student cannot be present in class to take the quiz or exam, the student must contact me immediately by e-mail through Cougar Mail or leaving a message on my office phone within seven (7) hours of missing the class.
2. Do not assume that you are eligible for a make-up test. Only students with documented excuses (hospital or court papers, doctor's note, death in the family, etc) will be considered for a make-up. Professor reserves the right to make decisions on a case by case basis.

Course Withdrawal Policy: If you do <u>not</u> want to receive a W, you must withdraw from the course <u>on or before</u> Census Day – February 3. Drops after the census date are considered withdrawals and appear as a 'W' on the transcript. The last day to withdraw from this course is **March 20, 2020 (**See the current Collin Registration Guide). It is <u>your</u> responsibility to go to the registrar's office and complete the appropriate paperwork in order to withdraw. Students who fall behind in class or stop coming to class and do not drop by the drop date will receive a grade of "F". **Withdrawal policy: Under section 51.907 of the Texas Education Code, students may not withdraw from more than six courses including any course a transfer student has withdrawn from at another Texas institute of higher education.**

Electronic Devices Policy: As per Section 6.1 Academic Etiquette and the College Experience (pg. 147, paragraph 3) of the *Collin Student Handbook* with the exception of a calculator, all electronic devices are to

be switched off during class, unless an exception is obtained from the instructor in advance. **No videotaping or recording of an instructor or classmates is allowed** without prior permission from the instructor. If a student wishes to record lectures, he/she will need to make an appointment to discuss policy on use of an electronic device and sign an agreement. It is understood that if permission for recordings is given, it is for student's **individual use ONLY** and may not be distributed to others or posted on any online platform without permission from the instructor.

Religious Holy Days: In accordance with section 51.911 of the Texas Education Code, the college will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within a reasonable time. A copy of the state rules and procedures regarding holy days and the form for notification of absence from each class under this provision are available from the Admissions and Records Office. Please refer to the current *Collin Student Handbook*.

SOBI: Collin College's Strategies of Behavioral Intervention (SOBI) team is an interdisciplinary, college-wide team whose mission is to provide support for students, faculty, and staff, and to facilitate a positive and effective learning environment. In order to accomplish this, the SOBI team has designed a process for assisting students who may display various levels of concerning behavior (e.g., strange or unusual behavior; changes in dress, personal hygiene, or physical appearance; threats of harm to self or others; etc.). Any behavior that becomes a concern to you or that negatively affects your ability to succeed as a student at Collin College may be referred to SOBI.

Academic Ethics: Every member of the Collin College community is expected to maintain the highest standards of academic integrity. Collin College may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission of one's own work material that is not one's own. Scholastic dishonesty may involve, but is not limited to, one or more of the following acts: cheating, plagiarism, collusion, use of annotated texts or teacher's editions, use of information about exams posted on the Internet or electronic medium, and/or falsifying academic records. While specific examples are listed below, this is not an exhaustive list and scholastic dishonesty may encompass other conduct, including any conduct through electronic or computerized means:

Plagiarism is the use of an author's words or ideas as if they were one's own without giving credit to the source, including, but not limited to, failure to acknowledge a direct quotation.

Cheating is the willful giving or receiving of information in an unauthorized manner during an examination; collaborating with another student during an examination without authority; using, buying, selling, soliciting, stealing, or otherwise obtaining course assignments and/or examination questions in advance, copying computer or Internet files, using someone else's work for assignments as if it were one's own; or any other dishonest means of attempting to fulfill the requirements of a course.

Collusion is intentionally or unintentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, failing to secure academic work; providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate about an examination or any other course assignment; removing tests or answer sheets from a test site, and allowing a classmate to copy answers.

Any form of scholastic dishonesty will be reported to the Dean of Students Office for a review. The specific assignment will NOT be graded until the instructor receives a final decision from the Dean of Students Office. **If a student is found responsible for academic dishonesty for any assignment by the Dean of Students Office, the specific assignment will receive a grade of zero. Additional academic penalty will be determined by the professor and it may include a grade of "F" in the course.** *See the current Collin Student Handbook for additional information.* Contact the Dean of Students at 972.881.5771 for the student disciplinary process and procedures or consult the *Collin Student Handbook*.

Lateral Transfer Policy:
Lateral transfers will not be granted after the 4th week of class or after the first exam, whichever comes first. Exceptions to this may only be for a documented change in work schedule and/or family emergencies. If a student does transfer to another section, **all previous grades will accompany the student.**

Course Content: Proofs and derivations will be assigned at the discretion of the instructor. The student will be responsible for knowing all definition and statements of theorems for each section outlined in the following modules.

Course Requirements: Attend class as scheduled and complete the required tests, lab assignments, and final examination, and any other assignments required by the instructor.

- Participation in class discussions is strongly encouraged. Be engaged and ask questions to ensure understanding of the material.
- Be courteous to your fellow classmates. Respect their opinions.
- All electronic devices (except calculator) must be **turned off or silenced** before entering the classroom. No text messaging and no open laptop computers in class. Students may be asked to leave the classroom if in violation of this policy. If such an event occurs, it will count as a tardy. After a second offense, the student will be reported to the Dean of Students office. If an emergency arises which necessitates the use of a cell phone, the student must obtain an exception from the instructor in advance.
- College rules do not permit you to eat or drink in the classroom.

Method of Evaluation:
The **Grading Scale** will be: A: 90 – 100%; B: 80 – 89%; C: 70 – 79%; D: 60 – 69%; F: 0 - 59%

Your grade will be determined by using the following:
Average of the Tests: **50%**
Labs: **10%**
Homework Assignments: **10%**
In class quizzes, activities and participation: **10%**
Comprehensive final exam: **20%**

Homework: You are required to complete homework assignments for each section in this course online using Connect Math. You will be responsible for registering online using a Connect Math Student access code and course ID. The Student access code may be purchased online or through the bookstore. The course ID for this class is **43YYN-YRKTJ**. Homework exercises are **automatically assigned** after the corresponding section is covered in class. The student is expected to complete the work for each section by 11:59 pm on due date (see deadlines in the course calendar and Connect Math). If you are not satisfied with your score for a particular homework you can rework the assignment until all the problems are correct before the assigned due date. All homework can be worked after the due date, but the penalty will apply. **Deduction of 7 percent per day will apply only to questions scored after the due date**. **It is important to understand that a non-submitted assignment will result in a grade of zero that will affect your homework and final average.**

In-class quizzes and activities: Periodic in-class quizzes are given during the semester and will be based on examples discussed in class and homework problems. The quizzes are graded on a point system. Your goal is to accumulate as many points as possible by the end of the semester. You **must show your work** to receive maximum quiz points. There are **no make-ups for quizzes**, which are normally administered at the beginning of class.

Examinations for this course include in-class quizzes; four semester tests, and a comprehensive final examination. You **must show your work** to receive maximum test points. All examinations will be given as outlined in the tentative calendar. All tests will be administered in the classroom. The graded tests will be returned within a week after the test was taken. If you have a question about the exam grade, please make an appointment and come to my office to discuss any issues. All grade issues must be resolved within one week after graded papers are returned to class. If you missed the day the test was returned you can pick it up during my office hours, but you will not have an extension for grade discussion.

Labs: Labs are opportunities for students to apply the concepts taught in class. They should be meaningful and fulfill the course's learning outcomes while assessing the core objectives skills of critical thinking, communication skills, and empirical/quantitative skills. Even though you will be working on Labs outside of class, it is still an assignment that must be completed by each student individually. Copying answers from a

classmate is **NOT acceptable** and will be considered a violation of academic integrity. The student will be reported to the Dean of Students office for further investigation.

There are 6 Lab assignments required in this class. **Lab 0** includes the student survey, weekly schedule, and is designed to help you organize your notes and materials for this class. **You will need to print this lab from my website http://faculty.collin.edu/kvishnyakova.**

Lab 1 covers 100 topics of pre-requisite material. You will need to use a separate ALEKS code to sign up for this lab. ALEKS Prep is a review of the foundations for College Algebra. Going through this lab early in the semester will increase your chance of success in College Algebra. ALEKS is a web-based, artificially intelligent assessment and learning system. ALEKS uses adaptive questioning to quickly and accurately determine exactly what you know and don't know, and then provides instruction on the topics you are most ready to learn. When you use ALEKS, you complete only the learning tasks that you need and not those somebody else needs. Students who show a high level of mastery in ALEKS will gain the foundation needed to be successful in the overall course. Access to ALEKS Prep is free to all Collin College students enrolled in College Algebra. To access ALEKS Prep, go to the website www.aleks.com and register using the course code: **9QFYX-TXLKV**.

> After accessing the program, you will be asked to complete an initial assessment. Take your time through the assessment! Complete the initial assessment carefully and honestly and try to avoid answering "I don't know" as that will lower your grade on the assessment. The results will allow you to determine which areas of the prerequisite material need additional work. Your goal is to master **at least** 80 out of 100 topics by the end of the third week. The deadline for Lab 1 is 11:59pm on **Saturday, February 8**. If you master less than 80 topics, your score for Lab 1 will be zero. If you master more than 80 topics than the number of the topics mastered will be your score for this lab.

The rest of the labs will be posted in Canvas or my website at least one week before it is due. You must show your work to receive full credit for each lab. Each lab must be submitted **at the beginning of class on the due date**.

Final exam - A comprehensive departmental final exam is REQUIRED for all students at the end of the course (NO EXCEPTIONS). If the exam is not taken, a zero will be recorded. No other grade can replace the final exam.

All tests are closed book, no notes. If for any reason, you miss one test during the semester, your final exam score will replace the zero score for the test. If all tests are taken as scheduled throughout the semester, the final exam score can replace the lowest test score if it's in student's best interest. This replacement will not take place on an exam if a student is found guilty of cheating on that exam. If you have any questions about your progress in class or your grades, you are welcome to talk to me during office hours or scheduled appointments.

TENTATIVE MATH1314.P06 SCHEDULE AND COURSE OUTLINE:

DATE	MATERIAL TO COVER	COMMENTS/ DUE DATES
January 22	Introductions, Syllabus; PASS, 1.6 – Radical Equations and Functions	**WELCOME!** ☺
January 27	1.6 – Radical Equations and Functions; 2.3 – Functions and Relations	**LAB 0** (class organization) **is due**
January 29	2.3 – Functions and Relations	**HW 1.6 is due**
February 3	2.4 – Linear Equations in Two Variables and Linear Functions; 2.5 Applications of Linear Equations and Modeling	**HW 2.3 is due;** **Census Day – February 3**
February 5	2.5 Applications of Linear Equations and Modeling; 2.6 – Transformations of Graphs	**HW 2.4 is due**

		LAB 1 (ALEKS PREP) is due on February 8 by 11:59pm
February 10	2.6 – Transformations of Graphs; *Review for Test 1*	**HW 2.5 is due**
February 12	**Test 1 (1.6, 2.3, 2.4, 2.5,2.6) in class**	**HW 2.6 is due**
February 17	2.7 – Analyzing Graphs and Piecewise Functions	**LAB 2 is due**
February 19	2.8 – Algebra of Functions and Functions Compositions	**HW 2.7 is due**
February 24	6.1 – Matrix Solutions to Linear Systems	**HW 2.8 is due**
February 26	6.1 – Matrix Solutions to Linear Systems; 6.2 – Inconsistent and Dependent Systems	
March 2	8.1 – Sequences and Series; *Review for Test 2*	**HW 6.1 and 6.2 are due**
March 4	**Test 2 (2.7, 2.8, 6.1, 6.2, 8.1) in class**	**HW 8.1 is due**
March 9-15	**Spring Break! No classes!**	**The College is closed March 13-15**
March 16	3.1 – Quadratic Functions and Applications	**LAB 3 is due**
March 18	3.2 – Intro to Polynomials; 3.3 – Dividing Polynomial Functions	**HW 3.1 is due; The last day to withdraw – March 20**
March 23	3.3 – Dividing Polynomial Functions; Remainder and Factor Theorems	**HW 3.2 is due**
March 25	3.4 – Zeros of Polynomial Functions	**HW 3.3 is due**
March 30	3.4 – Zeros of Polynomial Functions; 3.5 – Rational Functions and Their Graphs	
April 1	3.5 – Rational Functions and Their Graphs; *Review for Test 3*	**HW 3.4 is due**
April 6	**Test 3 (3.1-3.5) in class**	**HW 3.5 is due**
April 8	4.1 – Inverse Functions; 4.2 – Exponential Functions	**LAB 4 is due**
April 13	4.2 – Exponential Functions; 4.3 – Logarithmic Functions	**HW 4.1 is due**
April 15	4.3 – Logarithmic Functions; 4.4 – Properties of Logarithms	**HW 4.2 is due**
April 20	4.4 – Properties of Logarithms; 4.5 – Exponential and Logarithmic Equations	**HW 4.3 is due**
April 22	4.5 – Exponential and Logarithmic Equations	**HW 4.4 is due**
April 27	4.6 – Modeling with Exponential/Logarithmic Functions	**HW 4.5 is due**
April 29	4.6 – Modeling with Exponential/Logarithmic Functions; *Review for Test 4*	
May 4	**Test 4 (4.1 – 4.6) in class**	**HW 4.6 is due**

May 6	Review for Final	LAB 5 is due
May 13	Final Exam 10:45 am – 12:45 pm (room LH116)	

Notes: The instructor reserves the right to make changes to this syllabus during the semester.
Changes will be provided in writing during class hours.

Expectation: Maintaining a positive learning environment

As your instructor and as a student in this class, it is our shared responsibility to develop and maintain a positive learning environment for everyone. Your instructor takes this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are asked to respect the learning needs of your classmates and assist your instructor achieve this critical goal.

Creating Opportunities for Learning

As your instructor, it is my responsibility to present learning opportunities through the course syllabus, lectures, labs, in-class and out-of-class exercises and assignments.

It is your responsibility to do the learning by completing the readings, by attending class and by participating in the class discussions and assessment/lab exercises.

Tracking Your Success at Learning

Your instructor will conduct quizzes, exams and assessments that you can use to determine how successful you are at achieving the course learning outcomes (mastery of course content and skills) outlined in the syllabus.

If you find you are not mastering the material and skills, you are encouraged to reflect on how you study and prepare for each class. Your instructor welcomes a dialogue on what you discover and may be able to assist you in finding resources on campus that will improve your performance.

Student Technical Support: Now provided 24/7 for students at (972) 377-1777 or sts@collin.edu.

Tutoring Services: All students are expected to study daily for this course. The material you learn today will be used tomorrow. If you find that you need extra help, please:

- Come by my office during office hours and I will help you. If your schedule will not allow you to come to my office during scheduled office hours, please e-mail me and we can schedule an appointment for another time.
- Take advantage of the Math Lab. It is a free tutoring center for math students enrolled at Collin. There are math labs on all three campuses. The PRC math lab is located in room F-148. Call 972-377-1639 for hours or check my website. Student solution manuals are available, if you do not want to purchase one. TI calculators are available for use in the lab. Private tutor list is available in the Math Lab. You are responsible for contacting any private tutor and making the arrangements.
- Fill out a tutor request form at the ACCESS office in F144 (PRC). The ACCESS office provides each student with FREE group tutoring, and/or FREE on-line tutoring. You can get additional information and tutoring schedule at http://www.collin.edu/studentresources/tutoring/ or by calling ACCESS Advisor Amy Myrick at 972-881-5950.
- Form a study group with a few classmates. The best way to learn is to teach.
- Calculators can be borrowed from the Library for up to 4 hours daily. Please contact Library personnel to confirm availability and rules of use.
- Please check your **cougarmail e-mail daily**. This is how the college and your professors communicate with you.

SUBMISSION GUIDELINES FOR WRITTEN ASSIGNMENTS

The following standards apply to all homework, class work, and other turned-in assignments. The instructor reserves the right to not accept or deduct points from assignments that do not follow these guidelines.

- Assignments without student's name, course number, and section number will not be graded.
- Problems should be worked down (not across) the page in the order they were assigned.
- Multiple pages should be stapled.
- Illegible and/or incomprehensible work (as determined by the instructor) will not be graded.
- Assignments with frayed "spiral" edges will not be accepted.

- Answers should be <u>boxed or circled</u> for clarity. Always give exact answers unless asked for approximations. (i.e. fractions are preferred over rounded-off decimals)
- Show ALL your work and that work must support the answer. If there is absolutely no work for the problem, copy the problem and state the solution(s).
- Simplify your answers. If the problem asks to graph, please show the graph.
- Assignments are due when called for; late work will NOT be accepted!!!