MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
(309) 692-4092 or (800) 251-4299
Summer 2019
Thursday: 12:30-4:00 p.m.

Course: MAT 140NF- College Algebra
Credit: 4 Quarter Hours
Method of Delivery: Flex Learning
Classroom: 128
ALEKS Course code: AMDVK-WF6NT
Instructor: Taki Nagase
Email: tnagase@midstate.edu
Phone: 309-692-4092 ext. 1380
Office Hours: Thursday 4:00-5:00 p.m. (Room 128)

Course Description:

This course is presented as a functional approach to the algebra of the real number system. It is intended for students who have had at least two years of algebra in high school or who have taken intermediate algebra. Fundamental concepts will be reviewed quickly from intermediate algebra. This review will be followed by a rigorous schedule of topics that include complex numbers, relations, functions, inverse functions, linear equations and their graphs, quadratic equations and their graphs, higher degree polynomials and their graphs, composite functions, exponential and logarithmic functions, analytic geometry, and the basics of probability. Course fees may apply.

Prerequisite: MAT 038 or placement based on Entrance Exam Score

Text(s) & Manual(s): *ALEKS 360 18 Week **Access code***

Materials needed for this course: Scientific calculator

Topics: Complex numbers, relations, functions, inverse functions, linear equations and their graphs, quadratic equations and their graphs, higher degree polynomials and their graphs, composite functions, exponential and logarithmic functions, analytic geometry, and the basics of probability.

Learning Objectives: Upon completion of this course, the student will be able to:
1. Employ function notation, determine whether an expression is a function and state its domain and range
2. Simplify and solve equations with roots, radicals, and complex numbers
3. Complete the square, use the quadratic equation, and use the quadratic root property
4. Graph equations that are a) linear, b) quadratic, c) higher degree polynomials, and d) rational functions
5. Determine if an expression has an inverse and solve for the composite of two functions
6. Use synthetic division, and find the zeroes of polynomial functions
7. Solve and graph exponential and logarithmic functions
8. Graph parabolas, ellipses, and hyperbolas

Midstate Grading scale:

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Academic Integrity:

Academic integrity is a basic principle of the College's function. Midstate College students are expected to maintain a high level of academic honesty. Contrary actions may result in penalties such as failure of the assignment(s), a lesser grade on assignment(s), failure of the course and/or suspension from the College. The course instructor will review all submitted documents and supporting evidence in connection to the infraction. The course instructor will also review the student's personal file for other notifications of academic dishonesty before determining the level of action to be applied. The course instructor will complete the Academic Dishonesty Report form to document and describe the incident and actions taken, then kept on file. The student may appeal the decision to administration, whose decision will be final.

The following (**plagiarism, cheating, deception, sabotage, computer misuse and copyright infringement**) are included in the actions Midstate College considers behavior contrary to the academic integrity policy; however, the policy is not limited to these examples. Further discussion of consequences regarding academic dishonesty are addressed in the Student Handbook.

Plagiarism:

Plagiarism is using another person's words, either by paraphrase or direct quotation, without giving credit to the author(s). Plagiarism can also consist of cutting and pasting material from electronic sources by submitting all or a portion of work for assignment credit. This includes papers, computer programs, music, sculptures, paintings, photographs, etc. authored by another person without explicitly citing the original source(s). These actions violate the trust and honesty expected in academic work. Plagiarism is strictly against the academic policy of Midstate College. Its seriousness requires a measured, forceful response which includes consequences for inappropriate and/or no citation.

In courses containing writing assignments, the College promotes the use of Turnitin which compares the student's writing against previously submitted papers, journals, periodicals, books, and web pages. Students and instructors can use this service to reduce the incidence of plagiarism. This electronic resource has been found to conform to legal requirements for fair use and student confidentiality. It is able to provide a report to the student indicating the parts of the assignment that match.

Student Success and Tutoring:

Contact Student Success: Room 110; (309) 692-4092, ext. 1100; studentsuccess@midstate.edu;
The Office of Student Success offers help in the following areas:

- Tutoring: Tutoring is encouraged for students who are doing their best to complete assignments yet still are experiencing difficulty in this course. Tutoring may be provided by the instructor outside of scheduled class times or through the office of Student Success.
- Writing assignment assistance: This may include learning how to conduct research; using proofreading tools such as Turnitin; outlining a topic; and applying MLA/APA standards.
- Math, accounting, and computer skills (including file management).
- Test-taking techniques.
- Note-taking skills development.
- Study skills development.
- Time management.

WHAT TO EXPECT – PLEASE READ!!!

This course uses a competency-based software called **ALEKS**, which stands for **A**ssessment and **LE**arning in **K**nowledge **S**paces, and it is a Web-based, artificially intelligent assessment and learning system. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course. ALEKS then instructs the student on the topics she is most ready to learn. As a student works through a course, ALEKS periodically reassesses the student to ensure that topics learned are also retained.

To log in to the course the first time, go to www.aleks.com . If you have not used ALEKS before, you will need to create an account by clicking the yellow box with the words "New Student? Sign Up Now!" (If you have used ALEKS before, simply log in with your username and password). You will be asked for the 10 character course code (AMDVK-WF6NT) and your 20 digit **access code** that you purchased from the bookstore, as well as some **identifying information** (name, email, etc.) to get you set up with an account.

Once you have logged in to the course, you will be guided through a brief tutorial on how to use the tools and functions within ALEKS, and then you will take a '**Knowledge Test**'. The purpose of this test is to gauge your current knowledge of the material – don't stress if you don't know how to do most of the problems! After all, there wouldn't be a point to taking this class if you already knew everything, right? :) The particularly wonderful thing about this software, though, is that it takes the results of your test and tailors the class to you – so you won't have to do any problems on stuff you already know how to do!

Once you've completed the knowledge check, the first week of homework should open up (objectives). Each week will have 20-30 "topics" that you'll need to complete – but you may already have several of them done before you even start, due to the Knowledge Test. If you finish the week's homework early, the next week's material will open up for you. You're welcome to work ahead if you like! **I highly recommend taking notes as you go** – all exams (including the midterm and final) are open book/open notes.

If you're struggling with navigating around ALEKS, there is a user guide posted for you in Moodlerooms, as well as under 'Resources' in ALEKS. If you have any additional questions, I recommend you to come to class on Thursday between 12:30 p.m. and 4:00 p.m. (Room 128), or e-mail me at tnagase@midstate.edu. I will respond within 24 hours. Please add MAT140 in the subject line.

In-class Practice:
For students who attend class in person, there is a lecture time at the beginning of class for one and half hours. First, an instructor lectures the important concepts, which students need to know for the week. Then, students are asked to do some exercise problems for practice.

GENERAL POLICIES:

1. **Class Forum**: **Class Forum accounts for 20% of the final course grade** Each week you will be asked to respond to a Class Forum question **in ALEKS**. The **initial response** has to be posted for full credit **by midnight on Thursday** each week. In addition to writing your own answer, each week you will compose a response to at least one answer posted by another student. A main menu button, which is the three lines in the upper right corner, will allow you to access Class Forum.
2. **Homework:** Weekly homework will be assigned in ALEKS. The assignments each week are done 100% online – no written work is necessary. Since the assignments are all online, you are not required to purchase a physical textbook – you simply need an access code for ALEKS, which can be obtained by purchasing the eBook. Each week's assignments have **a deadline of the following Sunday evening by midnight**. The average weekly time spent by successful students is up to 12 **hours per week**, so please make sure you budget at least this much time in your schedule to work on the course.
3. **Exams:** There will be 2 exams given – a midterm and a final. These exams will also be given in ALEKS. **You will find the link to the exams from 'Assignments,' which you find in the main menu.** The midterm exam can be taken multiple times, but the final exam can be taken ONLY ONCE. **No extensions will be given on exams**.
4. **Late Work:** Late work is **NOT accepted**!! This is partially due to the setup of the course online, and partially to keep you on track in this course. Each week's objectives will close on Sunday evenings at midnight – and since each week's homework is worth 4% of your grade, it is IMPERATIVE that you keep up with the work!

Grading Specifications:

Class Forum	20%
Attendance/Pie Completion:	10%
Homework:	40%
Exams:	30% (15% for each exam)

Tentative Weekly Schedule:

WEEK 1
Section R4
Topics: Roots, Exponents, Radical Expressions
Objectives: 2
Assignments: Knowledge Test, Week 1 Objective

WEEK 2

Section 1.1
Topics: Solving linear equations
Objectives: 2
Assignments: Week 2 Objective
WEEK 3
Section 1.2 – 1.4
Topics: Algebraic word problems, Complex numbers, Quadratic Equations
Objectives: 2, 3
Assignments: Week 3 Objective

WEEK 4
Section 1.5, 1.8, 2.1, 2.2
Topics: Quadratic formula, Absolute value equations, Coordinate plane, Graphing circles
Objectives: 3, 4
Assignments: Week 4 Objective

WEEK 5
Section 2.3, 2.6
Topics: Function notation, Domain & Range, Graphing polynomials
Objectives: 1, 4
Assignments: Week 5 Objective

WEEK 6
Midterm Exam

WEEK 7
Section 2.8, 3.1 – 3.2
Topics: Composition of functions, Graphing quadratic equations, Finding zeros of polynomial functions
Objectives: 1, 4, 5, 6
Assignments: Week 7 Objective

WEEK 8
Section 3.3 – 3.5
Topics: Synthetic division, Rational zeros theorem, Graphing rational functions
Objectives: 4, 6
Assignments: Week 8 Objective

WEEK 9
Section 4.1, 4.4, 4.5
Topics: Inverse functions, logarithmic & exponential functions
Objectives: 5, 7
Assignments: Week 9 Objective

WEEK 10
Section 7.1 – 7.2
Topics: Analytic geometry: Graph ellipses & hyperbolas
Objectives: 8
Assignments: Week 10 Objective

WEEK 11
Section 7.3

Topics: Analytic geometry: Graph parabolas
Objectives: 8
Assignments: Week 11 Objective

WEEK 12
Final Exam