Syllabus
Math 3315-115, 80036, Math and Technology

Fall 2020
Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION
This course is 100% online course, and uses the A&M-Central Texas Canvas Learning Management System:
https://tamuct.instructure.com/

The student is also required to complete the following courses on www.datacamp.com:
Introduction to R
Cleaning data in R
Data Visualization in R

Students are required to send progress reports on the courses and apply the skills learned in the final project.

The course will also use the GeoGebra software which can be found at:
Geogebra.org

Students will be required to explain abstract mathematical concepts with the GeoGebra software by creating lecture videos by using screen capturing software (for example the Studio software on Canvas).

The course will be taught from Aug 24, 2020 - Oct 16, 2020.
The class will meet online over webex August 24th from 11:00 am-12:15pm. Click on this link: https://tamuct.webex.com/join/dekock

Student is also required to take a proctored midterm on September 21st. The midterm will be 3 hours long and can be taken anytime between 12pm-8pm. The midterm should be taken online by using the Proctorio software.
Student is also required to take a proctored final exam on October 12th. The final exam will be 3 hours long and can be taken anytime between 12pm-8pm. The final should be taken online by using the Proctorio software.

INSTRUCTOR AND CONTACT INFORMATION

Instructor: Dr Mienie Roberts
Physical Office: Heritage Hall Room 302K
Virtual office: https://tamuct.webex.com/join/dekock
Phone: 903.705.9703
Email:

Preferred: Canvas Inbox
University Email: dekock@tamuct.edu

Office Hours

Instructor’s office hours:
Face-to-face office hours in HH Room 302K:
August 24th 12pm-2pm
August 31st 12pm-2pm
September 28th 12pm-2pm
October 5th 12pm-2pm
October 12th 12pm-2pm

Online office hours:
Click on webex link: https://tamuct.webex.com/join/dekock
August 24th 12pm-2pm
August 31st 12pm-2pm
September 14th 12pm-2pm
September 21st 12pm-2pm
September 28th 12pm-2pm
October 5th 12pm-2pm
October 12th 12pm-2pm

And every Wednesday from 12pm-2pm.
Student can also schedule an appointment.

Graduate assistant’s office hours:
Online office hours:
Tuesdays and Thursdays from 9am-11am.

Student-instructor interaction
I will check messages once a day on the CANVAS inbox system and reply within 24 hours. Students are expected to check their CANVAS email and announcements on a daily basis.
WARRIOR SHIELD

Emergency Warning System for Texas A&M University-Central Texas
Warrior Shield is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in Warrior Shield through their myCT email account.

Connect to Warrior Shield by 911Cellular [https://portal.publicsafetycloud.net/Account/Login] to change where you receive your alerts or to opt out. By staying enrolled in Warrior Shield, university officials can quickly pass on safety-related information, regardless of your location.

COVID-19 SAFETY MEASURES

To promote public safety and protect students, faculty, and staff during the coronavirus pandemic, Texas A&M University-Central Texas has adopted policies and practices to minimize virus transmission. All members of the university community are expected to adhere to these measures to ensure their own safety and the safety of others. Students must observe the following practices while participating in face-to-face courses, course-related activities (office hours, help sessions, transitioning to and between classes, study spaces, academic services, etc.) and co-curricular programs:

• Self-monitoring—Students should follow CDC recommendations for self-monitoring. Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely and should not participate in face-to-face instruction. Students required to quarantine must participate in courses and course-related activities remotely and must not attend face-to-face course activities. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities.

• Face Coverings—Face coverings must be worn inside of buildings and within 50 feet of building entrances on the A&M-Central Texas Campus. This includes lobbies, restrooms, hallways, elevators, classrooms, laboratories, conference rooms, break rooms, non-private office spaces, and other shared spaces. Face coverings are also required in outdoor spaces where physical distancing is not maintained. The university will evaluate exceptions to this requirement on a case by case basis. Students can request an exception through the Office of Access and Inclusion in Student Affairs.

  o If a student refuses to wear a face covering, the instructor should ask the student to leave and join the class remotely. If the student does not leave the class, the faculty member should report that student to the Office of Student Conduct. Additionally, the faculty member may choose to teach that day’s class remotely for all students.

• Physical Distancing—Physical distancing must be maintained between students, instructors, and others in the course and course-related activities.
• Classroom Ingress/Egress—Students must follow marked pathways for entering and exiting classrooms and other teaching spaces. Leave classrooms promptly after course activities have concluded. Do not congregate in hallways and maintain 6-foot physical distancing when waiting to enter classrooms and other instructional spaces.
• The university will notify students in the event that the COVID-19 situation necessitates changes to the course schedule or modality.

COURSE INFORMATION

Course Overview and description

Course Objective or Goal
Student Learning Outcomes:

Competency Goals Statements (certification or standards)
Students will satisfy the Texas competencies and standards as outlined below by the Texas Education Agency:

TExES competencies and standards:

Competencies:

This course will use the R/RStudio and Geogebra software to revisit and explain abstract mathematical concepts. The student will learn to use the R/RStudio package to mine, analyze, and visualize data. Geogebra is dynamic software and can be used to explain abstract mathematical concepts via virtual manipulatives, sliders, etc. Students are required to have access to a computer/laptop and internet.

Course Objectives:

Student learning outcomes:

R

After completing this course, the students should be able to:

1. Perform arithmetic in R.
2. Assign variables in R
3. Distinguish between datatypes in R

(Covered in Project 1 Midterm, and Final)
4. Create and perform operations on matrices in R
5. Understand what is a factor and how to use it
6. Compare ordered factors

(Covered in Project 2, Midterm, and Final)

7. Create a dataframe
8. Select elements from a dataframe
9. Sort a dataframe
10. Create and name a list
11. Select elements from a list
12. Add more elements to a list

(Covered in Project 3, Midterm, and Final)

13. Understand the data cleaning process
14. Understand the principles of tidy data
15. Be able to work with functions in tidyr
16. Prepare data for analysis

(Covered in Project 4 and Final)

17. Find missing values
18. Create a plot in R
19. Create a piechart
20. Use a histogram to visualize data

(Covered in Project 5 and Final)

21. Plot correlation matrices
22. Adding lines, points, and test to plots
23. Understand in which instances it is necessary to scale data
24. Use color in plots
25. Use the ggplot package

(Covered in Project 6 and Final)

GeoGebra

1. Understand how to visualize different functions in GeoGebra
2. How to use sliders to explain parameters in functions

(Covered in Project 1, Midterm, and Final)

3. Be able to import an image into GeoGebra
4. Overlay graphs onto the image
5. Explain symmetry with the trace function
(Covered in Project 2, Midterm, and Final)

6. Use spreadsheets in GeoGebra
7. Find the mean, median, and standard deviation of a dataset.
8. Create and interpret a scatterplot

(Covered in Project 3, Midterm, and Final)

9. Create discrete and continuous probability distributions in GeoGebra
10. Find the area under the density

(Covered in Project 4 and Final)

11. Use GeoGebra to explain reflection and rotation of objects

(Covered in Project 5 and Final)

12. Use GeoGebra to explain Geometric concepts related to polygons
13. Measure angles
14. Calculate perimeter and area of polygons
15. Use GeoGebra to create and explain properties of circles
16. Calculate circumference and area of circles with GeoGebra
17. Create a virtual manipulative to explain the Pythagorean theorem

(Covered in Project 6 and Final)

Competency Goals Statements (certification or standards):

TExES competencies and standards: Competencies:
Mathematics 7–12 Standard III
Geometry and Measurement: The mathematics teacher understands and uses geometry, spatial reasoning, measurement concepts and principles and technology appropriate to teach the statewide curriculum (TEKS) to prepare students to use mathematics.

Mathematics 7–12 Standard IV
Probability and Statistics: The mathematics teacher understands and uses probability and statistics, their applications and technology appropriate to teach the statewide curriculum (TEKS) to prepare students to use mathematics.

Mathematics 7–12 Standard VII
Mathematical Learning and Instruction: The mathematics teacher understands how children learn and develop mathematical skills, procedures and concepts; knows typical errors students make; and uses this knowledge to plan, organize and implement instruction to meet curriculum goals and to teach all students to understand and use mathematics.

Competencies:

Competency 005: The teacher understands attributes of functions, relations and their graphs.

The beginning teacher:

A. Understands when a relation is a function.
B. Identifies the mathematical domain and range of functions and relations and determines reasonable domains for given situations.
C. Understands that a function represents a dependence of one quantity on another and can be represented in a variety of ways (e.g., concrete models, tables, graphs, diagrams, verbal descriptions, symbols).
D. Identifies and analyzes even and odd functions, one-to-one functions, inverse functions and their graphs.
E. Applies basic transformations [e.g., $k f(x)$, $f(x) + k$, $f(x - k)$, $f(kx)$, $|f(x)|$] to a parent function, $f$, and describes the effects on the graph of $y = f(x)$.
F. Performs operations (e.g., sum, difference, composition) on functions, finds inverse relations and describes results symbolically and graphically.
G. Uses graphs of functions to formulate conjectures of identities [e.g., $y = x^2 - 1$ and $y = (x - 1)(x + 1)$, $y = \log x^3$ and $y = 3 \log x$, $y = \sin(x + \frac{\pi}{2})$ and $y = \cos x$].
Competency 006: The teacher understands linear and quadratic functions, analyzes their algebraic and graphical properties and uses them to model and solve problems.

The beginning teacher:

A. Understands the concept of slope as a rate of change and interprets the meaning of slope and intercept in a variety of situations.

B. Writes equations of lines given various characteristics (e.g., two points, a point and slope, slope and \( y \)-intercept).

C. Applies techniques of linear and matrix algebra to represent and solve problems involving linear systems.

D. Analyzes the zeros (real and complex) of quadratic functions.

E. Makes connections between the \( y = ax^2 + bx + c \) and the \( y = a(x - h)^2 + k \) representations of a quadratic function and its graph.

F. Solves problems involving quadratic functions using a variety of methods (e.g., factoring, completing the square, using the quadratic formula, using a graphing calculator).

G. Models and solves problems involving linear and quadratic equations and inequalities using a variety of methods, including technology.
Competency 007: *The teacher understands polynomial, rational, radical, absolute value and piecewise functions, analyzes their algebraic and graphical properties and uses them to model and solve problems.*

The beginning teacher:

A. Recognizes and translates among various representations (e.g., written, tabular, graphical, algebraic) of polynomial, rational, radical, absolute value and piecewise functions.

B. Describes restrictions on the domains and ranges of polynomial, rational, radical, absolute value and piecewise functions.

C. Makes and uses connections among the significant points (e.g., zeros, local extrema, points where a function is not continuous or not differentiable) of a function, the graph of the function and the function’s symbolic representation.

D. Analyzes functions in terms of vertical, horizontal and slant asymptotes.

E. Analyzes and applies the relationship between inverse variation and rational functions.

F. Solves equations and inequalities involving polynomial, rational, radical, absolute value and piecewise functions using a variety of methods (e.g., tables, algebraic methods, graphs, use of a graphing calculator) and evaluates the reasonableness of solutions.

G. Models situations using polynomial, rational, radical, absolute value and piecewise functions and solves problems using a variety of methods, including technology.
Competency 008: The teacher understands exponential and logarithmic functions, analyses their algebraic and graphical properties and uses them to model and solve problems.

The beginning teacher:

A. Recognizes and translates among various representations (e.g., written, numerical, tabular, graphical, algebraic) of exponential and logarithmic functions.

B. Recognizes and uses connections among significant characteristics (e.g., intercepts, asymptotes) of a function involving exponential or logarithmic expressions, the graph of the function and the function’s symbolic representation.

C. Understands the relationship between exponential and logarithmic functions and uses the laws and properties of exponents and logarithms to simplify expressions and solve problems.

D. Uses a variety of representations and techniques (e.g., numerical methods, tables, graphs, analytic techniques, graphing calculators) to solve equations, inequalities and systems involving exponential and logarithmic functions.

E. Models and solves problems involving exponential growth and decay.

F. Uses logarithmic scales (e.g., Richter, decibel) to describe phenomena and solve problems.

G. Uses exponential and logarithmic functions to model and solve problems involving the mathematics of finance (e.g., compound interest).

H. Uses the exponential function to model situations and solve problems in which the rate of change of a quantity is proportional to the current amount of the quantity [i.e., \( f'(x) = kf(x) \)].
Competency 009: The teacher understands trigonometric and circular functions, analyzes their algebraic and graphical properties and uses them to model and solve problems.

The beginning teacher:

A. Analyzes the relationships among the unit circle in the coordinate plane, circular functions and the trigonometric functions.
B. Recognizes and translates among various representations (e.g., written, numerical, tabular, graphical, algebraic) of trigonometric functions and their inverses.
C. Recognizes and uses connections among significant properties (e.g., zeros, axes of symmetry, local extrema) and characteristics (e.g., amplitude, frequency, phase shift) of a trigonometric function, the graph of the function and the function's symbolic representation.
D. Understands the relationships between trigonometric functions and their inverses and uses these relationships to solve problems.
E. Uses trigonometric identities to simplify expressions and solve equations.
F. Models and solves a variety of problems (e.g., analyzing periodic phenomena) using trigonometric functions.
G. Uses graphing calculators to analyze and solve problems involving trigonometric functions.

Domain III — Geometry and Measurement

Competency 011: The teacher understands measurement as a process.

The beginning teacher:

A. Applies dimensional analysis to derive units and formulas in a variety of situations (e.g., rates of change of one variable with respect to another) and to find and evaluate solutions to problems.
B. Applies formulas for perimeter, area, surface area and volume of geometric figures and shapes (e.g., polygons, pyramids, prisms, cylinders, cones, spheres) to solve problems.
C. Recognizes the effects on length, area or volume when the linear dimensions of plane figures or solids are changed.
D. Applies the Pythagorean theorem, proportional reasoning and right triangle trigonometry to solve measurement problems.
Competency 013: The teacher understands the results, uses and applications of Euclidian geometry.

The beginning teacher:

A. Analyzes the properties of polygons and their components.
B. Analyzes the properties of circles and the lines that intersect them.
C. Uses geometric patterns and properties (e.g., similarity, congruence) to make generalizations about two- and three-dimensional figures and shapes (e.g., relationships of sides, angles).
D. Computes the perimeter, area and volume of figures and shapes created by subdividing and combining other figures and shapes (e.g., arc length, area of sectors).
E. Analyzes cross-sections and nets of three-dimensional shapes.
F. Uses top, front, side and corner views of three-dimensional shapes to create complete representations and solve problems.
G. Applies properties of two- and three-dimensional shapes to solve problems across the curriculum and in everyday life.

Competency 014: The teacher understands coordinate, transformational and vector geometry and their connections.

The beginning teacher:

A. Identifies transformations (i.e., reflections, translations, glide-reflections, rotations, dilations) and explores their properties.
B. Uses the properties of transformations and their compositions to solve problems.
C. Uses transformations to explore and describe reflectional, rotational and translational symmetry.
D. Applies transformations in the coordinate plane.
E. Applies concepts and properties of slope, midpoint, parallelism, perpendicularity and distance to explore properties of geometric figures and solve problems in the coordinate plane.
F. Uses coordinate geometry to derive and explore the equations, properties and applications of conic sections (i.e., lines, circles, hyperbolas, ellipses, parabolas).
G. Relates geometry and algebra by representing transformations as matrices and uses this relationship to solve problems.
H. Explores the relationship between geometric and algebraic representations of vectors and uses this relationship to solve problems.
Competency 015: The teacher understands how to use appropriate graphical and numerical techniques to explore data, characterize patterns and describe departures from patterns.

The beginning teacher:

A. Selects and uses an appropriate measurement scale (i.e., nominal, ordinal, interval, ratio) to answer research questions and analyze data.

B. Organizes, displays and interprets data in a variety of formats (e.g., tables, frequency distributions, scatter plots, stem-and-leaf plots, box-and-whisker plots, histograms, pie charts).

C. Applies concepts of center, spread, shape and skewness to describe a data distribution.

D. Understands measures of central tendency (i.e., mean, median, mode) and dispersion (i.e., range, interquartile range, variance, standard deviation).

E. Applies linear transformations (i.e., translating, stretching, shrinking) to convert data and describes the effect of linear transformations on measures of central tendency and dispersion.

F. Analyzes connections among concepts of center and spread, data clusters and gaps, data outliers and measures of central tendency and dispersion.

G. Supports arguments, makes predictions and draws conclusions using summary statistics and graphs to analyze and interpret one-variable data.

Competency 016: The teacher understands concepts and applications of probability.

The beginning teacher:

A. Understands how to explore concepts of probability through sampling, experiments and simulations and generates and uses probability models to represent situations.

B. Uses the concepts and principles of probability to describe the outcomes of simple and compound events.

C. Determines probabilities by constructing sample spaces to model situations.

D. Solves a variety of probability problems using combinations and permutations.

E. Solves a variety of probability problems using ratios of areas of geometric regions.

F. Calculates probabilities using the axioms of probability and related theorems and concepts such as the addition rule, multiplication rule, conditional probability and independence.
G. Understands expected value, variance and standard deviation of probability distributions (e.g., binomial, geometric, uniform, normal).

H. Applies concepts and properties of discrete and continuous random variables to model and solve a variety of problems involving probability and probability distributions (e.g., binomial, geometric, uniform, normal).

Competency 019: The teacher understands mathematical connections both within and outside of mathematics and how to communicate mathematical ideas and concepts.

The beginning teacher:

A. Recognizes and uses multiple representations of a mathematical concept (e.g., a point and its coordinates, the area of a circle as a quadratic function of the radius, probability as the ratio of two areas, area of a plane region as a definite integral).

B. Understands how mathematics is used to model and solve problems in other disciplines (e.g., art, music, science, social science, business).

C. Translates mathematical ideas between verbal and symbolic forms.

D. Communicates mathematical ideas using a variety of representations (e.g., numeric, verbal, graphical, pictorial, symbolic, concrete).

E. Understands the use of visual media, such as graphs, tables, diagrams and animations, to communicate mathematical information.

F. Uses appropriate mathematical terminology to express mathematical ideas.
Competency 020: The teacher understands how children learn mathematics and plans, organizes and implements instruction using knowledge of students, subject matter and statewide curriculum (Texas Essential Knowledge and Skills [TEKS]).

The beginning teacher:

A. Applies research-based theories of learning mathematics to plan appropriate instructional activities for all students.

B. Understands how students differ in their approaches to learning mathematics.

C. Uses students’ prior mathematical knowledge to build conceptual links to new knowledge and plans instruction that builds on students’ strengths and addresses students’ needs.

D. Understands how learning may be enhanced through the use of manipulatives, technology and other tools (e.g., stop watches, rulers).

E. Understands how to provide instruction along a continuum from concrete to abstract.

F. Understands a variety of instructional strategies and tasks that promote students’ abilities to do the mathematics described in the TEKS.

G. Understands how to create a learning environment that provides all students, including English-language learners, with opportunities to develop and improve mathematical skills and procedures.

H. Understands a variety of questioning strategies to encourage mathematical discourse and to help students analyze and evaluate their mathematical thinking.

I. Understands how to relate mathematics to students’ lives and to a variety of careers and professions.

Competency 021: The teacher understands assessment and uses a variety of formal and informal assessment techniques to monitor and guide mathematics instruction and to evaluate student progress.

The beginning teacher:

A. Understands the purpose, characteristics and uses of various assessments in mathematics, including formative and summative assessments.

B. Understands how to select and develop assessments that are consistent with what is taught and how it is taught.
**Required Reading and Textbook(s)**

No text is required for this class. Students will use the datacamp.com course materials.

**COURSE REQUIREMENTS**

**Grading Criteria Rubric and Conversion**

The student will be required to complete 6 projects online and complete one proctored midterm and one proctored final exam by using the Proctorio software.

<table>
<thead>
<tr>
<th>Project</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1</td>
<td>(100 points)</td>
<td>10%</td>
</tr>
<tr>
<td>Project 2</td>
<td>(100 points)</td>
<td>10%</td>
</tr>
<tr>
<td>Project 3</td>
<td>(100 points)</td>
<td>10%</td>
</tr>
<tr>
<td>Project 4</td>
<td>(100 points)</td>
<td>10%</td>
</tr>
<tr>
<td>Project 5</td>
<td>(100 points)</td>
<td>10%</td>
</tr>
<tr>
<td>Project 6</td>
<td>(100 points)</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm</td>
<td>(200 points)</td>
<td>20%</td>
</tr>
<tr>
<td>Final</td>
<td>(200 points)</td>
<td>20%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>(1000 points)</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Posting of Grades**

Students will receive feedback within one week of the due date on the following assignments:
- Projects
- Midterm
- Final

**Grading Policies**

NO LATE ASSIGNMENTS WILL BE ACCEPTED IN THIS CLASS.
# COURSE OUTLINE AND CALENDAR

## Complete Course Calendar

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Aug 24&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Synchronous online meeting from 6pm-7:15pm</td>
</tr>
<tr>
<td></td>
<td>Aug 25&lt;sup&gt;th&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aug 26&lt;sup&gt;th&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aug 27&lt;sup&gt;th&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td>Sep 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sep 2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>Sep 3&lt;sup&gt;rd&lt;/sup&gt; Project 1 due</td>
</tr>
<tr>
<td>Week 3</td>
<td>Sep 8&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Sep 9&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Sep 10&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Project 2 due</td>
</tr>
<tr>
<td>Week 4</td>
<td>Sep 14&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Sep 15&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Sep 16&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Sep 17&lt;sup&gt;th&lt;/sup&gt; Project 3 due</td>
</tr>
<tr>
<td>Week 5</td>
<td>Sep 21&lt;sup&gt;st&lt;/sup&gt;</td>
<td>Sep 22&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Sep 23&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>Sep 24&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Week 6</td>
<td>Sep 28&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Sep 29&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Sep 30&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Oct 1&lt;sup&gt;st&lt;/sup&gt; Project 5 due</td>
</tr>
<tr>
<td>Week 7</td>
<td>Oct 5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Oct 6&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Oct 7&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Oct 8&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Week 8</td>
<td>Oct 12&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Oct 13&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Oct 14&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Oct 15&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

## Important University Dates

- **Aug 24<sup>th</sup>** Synchronous online meeting from 6pm-7:15pm
- **Sep 8<sup>th</sup>** Project 2 due
- **Sep 14<sup>th</sup>** Project 3 due
- **Sep 21<sup>st</sup>** Proctored Midterm on Projects 1-3
- **Oct 5<sup>th</sup>** Project 6 due
- **Oct 12<sup>th</sup>** Proctored and Comprehensive Final exam (Projects 1-6)
TECHNOLOGY REQUIREMENTS AND SUPPORT

Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no longer supports any version of Internet Explorer.

Logon to A&M-Central Texas Canvas [https://tamuct.instructure.com/] or access Canvas through the TAMUCT Online link in myCT [https://tamuct.onecampus.com/]. You will log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password
Canvas Support

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select “Chat with Canvas Support,” submit a support request through “Report a Problem,” or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

The projects will be on the use of the R/RStudio and GeoGebra software.

ALL synchronous meetings and office hours will be held on webex. Please click on this link to access my office hours or synchronous meetings:

https://tamuct.webex.com/join/dekock

Online Proctored Testing

A&M-Central Texas uses Proctorio for online identity verification and proctored testing. This service is provided at no direct cost to students. This course requires identity verification and proctored testing, the technology requirements are: Any computer meeting the minimum computing requirements, plus web camera, speaker, and microphone (or headset). Proctorio also requires the Chrome web browser with their custom plug in.

Other Technology Support

For log-in problems, students should contact Help Desk Central

24 hours a day, 7 days a week

Email: helpdesk@tamu.edu
Phone: (254) 519-5466
Web Chat: [http://hdc.tamu.edu]

Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Drop Policy

If you discover that you need to drop this class, you must complete the Drop Request Dynamic Form through Warrior Web.

[https://dynamicforms.ngwebsolutions.com/casAuthentication.ashx?InstID=eaed95b9-f2be-45f3-a37d-46928168bc10&targetUrl=https%3A%2F%2Fdynamicforms.ngwebsolutions.com%2FSubmit%2FStart%2F53b8369e-0502-4f36-be43-f02a4202f612).]
Faculty cannot drop students; this is always the responsibility of the student. The Registrar’s Office will provide a deadline on the Academic Calendar for which the form must be completed. Once you submit the completed form to the Registrar’s Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar’s Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Academic Integrity

Texas A&M University -Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student’s academic performance and includes, but is not limited to, working with others in an unauthorized manner, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student’s work, collusion, and the abuse of resource materials. All academic misconduct concerns will be referred to the university’s Office of Student Conduct. Ignorance of the university’s standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more information regarding the Student Conduct process, [https://www.tamuct.edu/student-affairs/student-conduct.html]. If you know of potential honor violations by other students, you may submit a report, [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0].

Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Office of Access and Inclusion is responsible for ensuring that students with a disability receive equal access to the university’s programs, services and activities. If you believe you have a disability requiring reasonable accommodations please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information please visit our Access & Inclusion Canvas page (log-in required) [https://tamuct.instructure.com/courses/717]

Important information for Pregnant and/or Parenting Students
Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education’s Office of Civil Rights, the Dean of Student Affairs’ Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit Student Affairs [https://www.tamuct.edu/student-affairs/index.html]. Students may also contact the institution’s Title IX Coordinator. If you would like to read more about these requirements and guidelines online, please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender—including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University’s Title IX Coordinator.

**Tutoring**

Tutoring is available to all A&M-Central Texas students, on a remote online basis. Visit the Academic Support Community in Canvas to view schedules and contact information. Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors will return at the Tutoring Center in Warrior Hall, Suite 111 in the Fall 2020. Student success coaching is available online upon request.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, success coaching, or have any other question, contact Academic Support Programs at (254) 501-5836, visit the Office of Student Success at 212F Warrior Hall, or by emailing studentsuccess@tamuct.edu.

Chat live with a tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas except writing support. Access Tutor.com through Canvas.

**University Writing Center**

The University Writing Center (UWC) at Texas A&M University–Central Texas (TAMUCT) is a free service open to all TAMUCT students. For the Fall 2020 semester, all services will be online as a result of the COVID-19 pandemic. The hours of operation are from 10:00 a.m.-5:00 p.m. Monday thru Thursday with satellite hours online Monday thru Thursday from 6:00-9:00 p.m. The UWC is also offering hours from 12:00-3:00 p.m. on Saturdays. Tutors are prepared to help writers of all levels and abilities at any stage of the writing process.
By providing a practice audience for students’ ideas and writing, our tutors highlight the ways in which they read and interpret students’ texts, offering guidance and support throughout the various stages of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via WCONline [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC and/or need any assistance with scheduling.

University Library

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 85,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our Library website [http://tamuct.libguides.com/index].

For Fall 2020, all reference service will be conducted virtually. Please go to our Library website [http://tamuct.libguides.com/index] to access our virtual reference help and our current hours.

OPTIONAL POLICY STATEMENTS

A Note about Sexual Violence at A&M-Central Texas

Sexual violence is a serious safety, social justice, and public health issue. The university offers
support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don’t agree with their behaviors and tell survivors we will support them. Your actions matter. Don’t be a bystander; be an agent of change. For additional information on campus policy and resources visit the Title IX webpage [https://www.tamuct.edu/compliance/titleix.html].

**Behavioral Intervention**

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the referral online [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2].

Anonymous referrals are accepted. Please see the Behavioral Intervention Team website for more information [https://www.tamuct.edu/student-affairs/bat.html]. If a person’s behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5800.

**OTHER POLICIES**

**Copyright Notice**

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas’ Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

*Copyright. (2020) by (Dr. Mienie Roberts) at Texas A&M University-Central Texas, (College of Arts and Sciences); 1001 Leadership Place, Killeen, TX 76549; 903-705-9703; dekok@tamuct.edu*