

# McLennan

C O M M U N I T Y

# COLLEGE

WACO, TEXAS

---

## **COURSE SYLLABUS**

**AND**

## **INSTRUCTOR PLAN**

**Elementary Statistical Methods**

**Math 1342 sections 87, 89, 91**

**Gail Illich**

**NOTE: This is a 16-week course.**

### **COVID 19 Notice:**

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

AN EQUAL OPPORTUNITY INSTITUTION

Spring 2022

---

Course Description:

Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.

Provides a study of statistical description of frequency distributions; sampling; elementary principles of probability distributions, both binomial and normal; estimation of parameters; tests of hypotheses; linear regression and correlation; independence of variables by Chi Square analysis; and an introduction to a statistics software package.

**Prerequisites and/or Corequisites:**

TSI Math Complete or Math 0308 or linked with Math 0308 or credit for a college-level math course or consent of division chair.

**Instructor Information:**

Instructor Name: Gail Illich

MCC E-mail: [gillich@mclennan.edu](mailto:gillich@mclennan.edu)

Office Phone Number: 254-299-8839 (voice mail only) cell number posted in Brightspace

Office Location: Mathematics 204

Office/Teacher Conference Hours: Specific times to be announced at the beginning of the semester and by appointment

Other Instruction Information: Students can access instructor through video conference during office hours Instructions to Join Zoom Video Conference are located in the course at

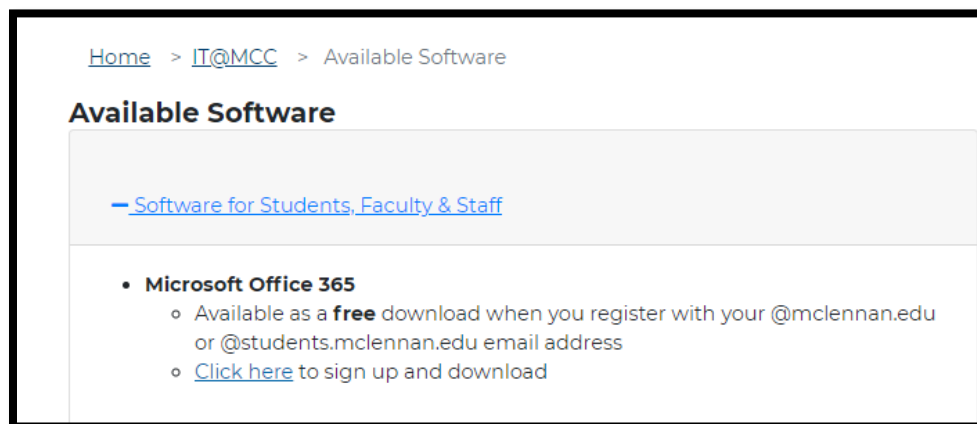
<https://brightspace.mclennan.edu/d2l/login>

**Required Text & Materials:**

All textbook materials are available through Inclusive Access in the Brightspace Course. Students do not need to purchase anything additional from the bookstore.

**Required Microsoft Office 365** which includes the latest versions Word, Power Point, and Excel is required and available on all on campus computers. Students may download this software to a personal computer using MCC studentID and following instructions under <Software for Students, Faculty & Staff> at the following website:

<https://www.mclennan.edu/tech-support/software.html>



**MCC Bookstore Website:** <http://www.mclennan.edu/bookstore/>

**Methods of Teaching and Learning:**

The following methods for teaching and learning will be used: online video lecture, online homework, online exams, online textbook, and video conferences with the instructor. For each instructional unit a PowerPoint and video recording demonstrating the Excel computations and explaining the topics is available under the “Lessons” Menu tab. Students are required to meet via two-way video (using Zoom video conferencing) with the instructor at least twice during the semester. These conferences are used to complete an oral exam and verify student identity. Students will be instructed on how to use the Zoom program from their smart phone, tablet, computer with camera/mic, or on campus using the technology equipment available for student use at MCC. The final exam is also proctored through Zoom.

**Course Objectives and/or Competencies:**

- 1) Explain the use of data collection and statistics as tools to reach reasonable conclusions. Recognize, examine and interpret the basic principles of describing and presenting data.
- 2) Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
- 3) Explain the role of probability in statistics.
- 4) Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
- 5) Describe and compute confidence intervals.
- 6) Solve linear regression and correlation problems.
- 7) Perform hypothesis testing using statistical methods.

# Elementary Statistical Methods

1342 87, 89,91

## Course Outline or Schedule:

### Math 1342 Assignments and Tests

**First Assignment due by 11:59pm on Jan 11. Do not wait until the due date to begin the assignment.** Every online homework assignment and test has corresponding lectures or reviews with notes found under the **Lessons** tab. Watch the lecture first before attempting the assignment. Keep careful notes of your work for submission to Prof Illich upon request. **You may work ahead of the dates and finish the course but will need to contact Prof Illich to arrange oral and final exam proctoring.**

Due Date by 11:59pm	Activity
1/11/2022	Complete <b>Orientation Unit in Brightspace</b> Email confirmation of work as outlined in unit <b>Wednesday Jan 12 - 8am; 3pm; 6pm</b> <b>Thursday Jan 13 - 8am; 3pm; 6pm</b>
1/12/2022 or 1/13/2022	Meet on Zoom to Complete Orientation at one of times listed above
1/18/2022	<b>Complete Unit 1-1</b> Online homework
1/25/2022	Complete <b>Unit 1-2</b> Online homework Complete <b>Unit 1-3</b> Online homework
2/01/2022	Complete <b>Unit 1 test online (Obj 1,4)</b>
2/08/2022	Complete <b>Unit 2-1</b> Online homework Complete <b>Unit 2-2</b> Online homework
2/15/2022	Complete <b>Unit 2-3</b> Online homework
2/22/2022	Complete <b>Unit 2 test online (obj 2,3)</b>
3/01/2022	Complete <b>Unit 3-1</b> Online homework
3/15/2022	Complete <b>Unit 3-2</b> Online homework
3/22/2022	Complete <b>Unit 3-3</b> Online homework
3/29/2022	Complete <b>Unit 3 test online (obj 1,4,5,7)</b> Email oral exam time choice select from below: <b>April 6 8am, 3pm, 6pm</b> <b>April 7 8am, 3pm, 6pm</b>
4/05/2022	Complete <b>Unit 4-1</b> Online homework
4/06/2022 or 4/07/2022	<b>Oral Exam</b> with Prof Illich and classmates during scheduled video conference time (see times in listed above)
4/12/2022	Complete <b>Unit 4-2</b> Online homework
4/19/2022	Complete <b>Unit 4 test online (obj 1,4,5,7)</b> Begin Review for Final Exam
4/26/2022	Complete <b>Unit 5-1</b> Online homework Complete <b>Unit 5-2</b> Online homework ( <b>Obj 6,7</b> )
Week of April 24-30	Complete Final Exam Review <b>95% or earns a 5 point bonus on final exam</b>
5/02/2022 8am, 3pm,6pm 5/03/2022 3pm, 6pm	Complete <b>Comprehensive Final Exam</b> via Zoom with Prof Illich at one of the times listed in box on the left ( <b>Obj 1-7</b> )

---

### **Course Grading Information:**

#### **Grading Procedures:**

##### **Homework:**

- Homework assignments will be assigned on-line using MyMathLab and the average of the homework grades will constitute 30% of your final grade. If you fail to submit a homework assignment, before the due date it will count as an absence.
- Refer to the assignment sheet for homework due dates.

##### **Unit Exams and Final Exam:**

- **Four Online Unit Exams** the average of these assignments is worth 30% of your final grade.
- **There are no make-up exams** – The lowest score of the unit exams will be dropped. Exams can be completed ahead of the due date, if you miss a unit exam due date– that is the score that will be dropped.
- Refer to the assignment sheet for due dates.
- **Face to Face Interview and Oral Exam** – 10% of your final grade. Oral exams are conducted with Zoom video conferencing software. The available oral exam times are listed on the assignment sheet.
- **The Comprehensive Proctored Final Exam is monitored through Zoom with Prof Illich at the times listed on the assignment page.** Students may be required to submit work via, email, fax, scan, photo, or video.

##### **Grades:**

- The average of the homework assignments is worth 30%
  - The average of four online exams is worth 30%
  - The face to face interview and oral exam is **mandatory** and is worth 10%
  - The **cumulative virtually proctored** final exam is worth 30%
- 90-100 = A, 80 – 89 = B, 70 – 79 = C, 60 – 69 = D, 59 and below = F

The course assignments and assessments are designed to assess the following skills:

- Communications: Students participate in assignments involving topics related to Statistics or other mathematics. They then share their results with their instructor and/or colleagues in class via written, oral, and visual methods.
- Critical Thinking: Critical thinking is the essence of all mathematical studies. Through inductive and deductive reasoning, students explore probability and statistics problems using the logical process of inquiry, analysis, evaluation, and synthesis.
- Empirical and Quantitative Skills: Students work on various mathematical problem solving skills throughout the course. The course focuses on the analysis of numerical data as presented in application problems. Students use simulation and apply statistical principles to demonstrate their ability to reach informed conclusions.

Communication Assignment Rubric

Grading Rubric for Essays, Presentations, and Oral Exam

# Elementary Statistical Methods

1342 87, 89,91

Course name/number/section:  
 Student name/number:  
 Type of Communication Event:  
☐ Boardwork  
☐ Classtime explanation  
☐ Personal interview  
☐ Case study presentation  
☐ Poster board project presentation  
☐ Small group presentation  
☐ Online presentation

IN WRITTEN LANGUAGE	<p>4</p> <p>Student demonstrates <b>full knowledge with no mistakes</b> and <b>elaborates</b> on mathematical concepts.</p>	<p>3</p> <p>Student demonstrates <b>good knowledge</b> but does <b>not elaborate</b>.</p>	<p>2</p> <p>Student demonstrates <b>limited knowledge</b> but makes <b>several mistakes</b>.</p>	<p>1</p> <p>Student does <b>not have a grasp</b> of the mathematical information.</p>
IN ORAL LANGUAGE	<p>4</p> <p>Student uses <b>fluent and accurate</b> words to describe mathematical concepts and processes.</p>	<p>3</p> <p>Student uses <b>somewhat appropriate</b> words to describe mathematical concepts and processes.</p>	<p>2</p> <p>Student uses <b>vague words</b> to describe mathematical concepts and processes.</p>	<p>1</p> <p>Student uses <b>incorrect and confusing words</b> to describe mathematical concepts and processes.</p>
IN VISUAL PRESENTATION	<p>4</p> <p>Student uses <b>appropriate and accurate</b> visual representation of mathematical concepts and processes.</p>	<p>3</p> <p>Student uses <b>somewhat appropriate</b> visual representation of mathematical concepts and processes.</p>	<p>2</p> <p>Student uses <b>some inaccuracy in</b> visual representation of mathematical concepts and processes.</p>	<p>1</p> <p>Student uses <b>total inaccuracy in</b> visual representation of mathematical concepts and processes.</p>

### **Study Habits and Course Structure:**

- Depending on your level of knowledge coming into the course, you may need to plan on 9 hours a week working on this class.
- This work will include reading assignments, working on homework, watching streaming videos, asking and answering questions on the online discussion board and taking tests.
- You should work all assigned problems, check the answer, email or post on the discussion board any questions or problems you are having. I will try to respond to all emails within 24 hours with the exception, possibly, of holidays and weekends.
- In addition to the power points, streaming videos and lecture notes, you can find information regarding specific homework questions under the **homework help** button in each unit. You may want to access this button while you are working online homework if you run into problems. Please interact with your classmates by posting unit questions on the discussion board.

### **Withdrawals From Class:**

- The last day to withdrawal from the class is **March 25**. The student must complete the withdrawal process by email contact with Prof Illich.
- **Section 51.907 of the Texas Education Code**, enacted by the state of Texas during spring 2007, applies to students who enroll in a public institution of higher education as a first time freshman in fall 2007 or later.

Based on this law, MCC or any other Texas Public institution of higher education may not permit a student to drop more than six courses during their undergraduate

### **Late Work, Attendance, and Make Up Work Policies:**

Due dates for online homework will be clearly communicated. The lowest unit test grade will be dropped. For this reason, makeup tests are not given. A missed test will be recorded as a 0 and the lowest test grade will be dropped at the end of the semester. Students can work ahead in the course and take unit tests early. Students may finish the course early by contacting the instructor and arranging times to complete oral exam and proctored final exam.

Attendance is taken by the **online submission of homework, participation in discussion boards and completion of online tests by the due dates** shown on the assignment sheet. If a homework due date is extended throughout the semester, please make sure you have submitted part of the homework by the due date it was originally assigned to count as your attendance. If you miss more than 25% combined homework or test due dates grades you may be dropped from the course.

### **Student Behavioral Expectations or Conduct Policy:**

Students are expected to maintain classroom decorum that includes respect for other students and the instructor. Students should demonstrate an attitude that seeks to take full advantage of the education opportunity.

---

The final exam is virtually proctored with Prof. Illich at the times specified on the assignment sheet. Having someone else do your online homework assignment and tests are both violations of the academic integrity policy and either may result in failing grades and/or being dropped from the class. Infractions such as these will be reported to the administration for tracking and possible college action. Students should keep careful notes of all work done in class and have them available for the instructor's review when requested.

**\* [Click Here for the MCC Academic Integrity Statement](#)**

([www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity))

The link above will provide you with information about academic integrity, dishonesty, and cheating.

**\* [Click Here for the MCC Attendance/Absences Policy](#)**

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

*\* You will need to access each link separately through your Web browser (for example: Mozilla Firefox, Chrome, Microsoft Edge or Safari) to print each link's information.*

**Course Notes and Instructor Recommendations:**

**Tips for success**

**Basics:**

- Always read the announcements each time you enter the course!
- After reading the Announcements, click on the **Content** tab at the top of the course homepage. You will see the table of contents on the left below it you will find the **Lessons** tab. The course consists of 5 units under the **Lessons** button on the left hand side of the web page.
- If you click on a **Unit** button, you will find an overview set of instructions for the unit and all of the materials available for the unit.
- Work through the power points, streaming videos, textbook and homework problems as outlined in the overview.



---

**Online Homework:**

- Each unit has 2 or 3 homework assignments as noted on the assignment page of the syllabus (pg 9) To work a homework set click on **Homework and Tests**
  - Click on the desired homework
  - Click on the problem
  - Work the problem and click on **check answer**
  - If the answer is correct, a **green check** mark may appear at the top of the page indicating the problem is complete or another part to the problem may show up. You will need to work that part of the problem and check it. Continue in this manner until the problem is correct (**green check**). **You may need to scroll down to complete all of the parts to a problem.**
  - You get three chances to get a part of the problem correct – if you miss it on the third try the correct answer will show up and you will either get a red x on the problem at the top or you will be asked another part of the problem – at this point you will not be able to get the problem correct so you should probably just click on another problem and then go back to the problem you missed. The program will generate another variation of the problem and you will be able to try again. This program gives no partial credit. The program is **very picky** about rounding correctly as designated in the problem.
  - You can continue to work problems until you get it correct or until the due date has expired.
  - If you click on **similar exercise** – the program will give you another variation of the problem you just worked – so you can try again to get the **green check**
  - When you have completed the homework or want to take a break click the **save button** and that will send your grade to me. You can go back in and work problems until the due date and then **save** again so I see your updated score.

The hints right after you miss a problem are sometimes good and sometimes not so good....I did not write them. **I have written many homework problem hints** that can be found under the corresponding unit in the tab labeled **Homework Help**. You may want to have this folder up in a separate window while you are working through the problems. I also encourage students to place questions and problems they are having on the **discussion board** where hopefully one of your classmates or I can help.

**Online Unit Tests:**

- To prepare for a test you should review then notes and homework
- You get two chances for each test. Each attempt is allowed 90 min in one sitting – do not click around in the course during the test or you will get locked out.
- Each test will have at least one essay question. Please use complete sentences with proper grammar and apply the concepts from the unit to answer them carefully.
- When you are ready to begin a test click on Homework and Tests and then on the test tab.

- Allow yourself time to study for the test, take the test, review how you did on the test, and take the test again if necessary.

**Oral Exam and Face to Face Interview:**

- All students must complete an oral interview and exam.
- This exam is a video conference using Zoom with Prof Illich and may include other students who are also taking their exams.
- The times available to take the oral exam are listed on the assignments page.
- During the exam students should show a photo ID to Prof Illich and answer questions demonstrating their mastery of the material. The oral exam will cover the content in units 1-3 of the course.
- Review unit tests through the “gradebook” menu tab to prepare.
- All students will use the “chat” feature in Zoom to answer questions and then the answer students answers are discussed.
- Times are available on campus to complete the video conference if assistance is needed.

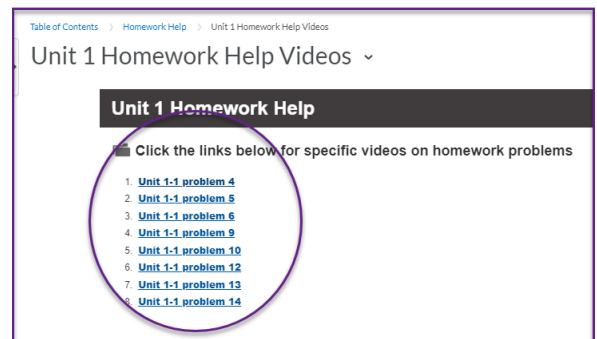
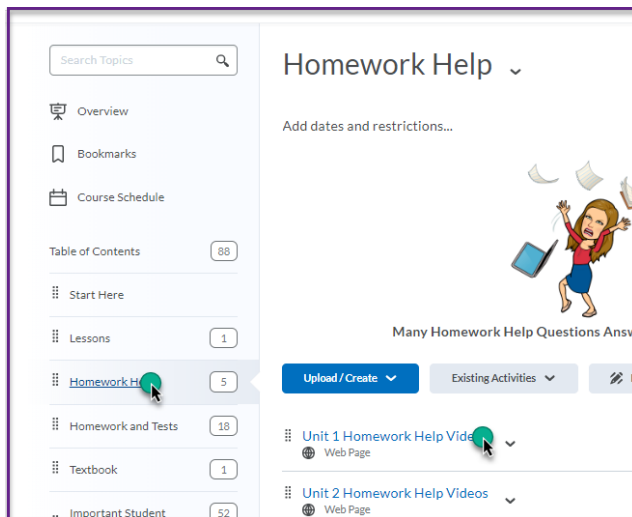
**Virtually Proctored Online Final Exam:**

- There is an online final exam review under the Homework and Tests button. Students who earn a 95% or better on this review receive a 5 point bonus on the final
- ONE chance to complete the proctored online final exam within a 2 hour time limit.
- The final exam is proctored virtually through Zoom at the times listed on the assignments page.
- Review material for the final are found under the Final Exam Review button

**Other Cool Stuff to Know:**

- To check your grades – click on the Gradebook button on the left. You may need to click on the show entire course button at the top to see all of the grades
- Please email me with problems or concerns you are having with the course. You could also place your question on the discussion board for the benefit of the other students in the class. I will do my best to respond within 24 hours during weekdays.
- Like anything in life you get what you give – so if you spend time on this class you will learn statistics, feel successful, and be happy. ☺
- Computers are evil machines that mess up when you need them to work – this is overcome by allowing yourself enough time for technological things to not go your way.
- Sometimes changing your browser will help the programs work better. Google Chrome, Internet Explorer, and Firefox are all good browsers but sometimes one of them will work better than the others so you might want to try a different browser if you are having trouble.

- If your computer is being yucky, try updating and restarting.
- **I have approximately 120 students taking classes online – PLEASE put your FULL NAME the COURSE you are taking in your email correspondence with me.**
- Thanks to your tax and tuition dollars. The computers and internet connections at MCC rock!!! If yours acts up and you live in the area, you might just want to come to the MCC library or math lab.
- **MANY STUDENTS HAVE SAID THE HOMEWORK HELP IN EACH UNIT IS THE BEST THING SINCE SLICED BREAD**



### Online Community and Contact

- One of the first activities in the course is to post an introduction under the Discussions tab. Click on the **Introductions prompt** under the Discussions tab at the top of the class website. Tell the class a little about yourself – for example what you are planning to get your degree in, if you work, and any hobbies or interest you have, pets, kids, etc...Include a photo or video.
- Questions about content and structure of the course should be placed in the Discussions tab for the benefit of all students. I will check there often for questions and hope that you will use it as a place to communicate with your classmates. Feel free to answer or post a question.
- Contact Prof Illich through office visit, email, phone, or text. I will try to respond to all emails, voice mails, and text within 24 hours. **Please include your full name, the course you are taking, and contact information in all correspondence.**  
[gillich@mclennan.edu](mailto:gillich@mclennan.edu) 254-424-6217 (cell)

# McLennan

C O M M U N I T Y

# COLLEGE

---

## ACADEMIC RESOURCES/POLICIES

### **Accommodations/ADA Statement:**

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit [www.mclennan.edu/disability](http://www.mclennan.edu/disability).

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

[disabilities@mclennan.edu](mailto:disabilities@mclennan.edu)

254-299-8122

Room 319, Student Services Center

### **Title IX:**

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at [titleix@mclennan.edu](mailto:titleix@mclennan.edu) or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>.

Go to McLennan's Title IX webpage at [www.mclennan.edu/titleix/](http://www.mclennan.edu/titleix/). It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

**Student Support/Resources:**

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a Success Coach by calling (254) 299-8226 or emailing [SuccessCoach@mclennan.edu](mailto:SuccessCoach@mclennan.edu). Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

**MCC Foundation Emergency Grant Fund:**

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at [https://www.mclennan.edu/foundation/docs/Emergency\\_Grant\\_Application.pdf](https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf).

**MCC Academic Integrity Statement:**

Go to [www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity) for information about academic integrity, dishonesty, and cheating.

**Minimum System Requirements to Utilize MCC's D2L|Brightspace:**

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

**Minimum Technical Skills:**

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

**Backup Plan for Technology:**

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

**Email Policy:**

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails.

**Instructional Uses of Email:**

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

**Email on Mobile Devices:**

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email [Helpdesk@mclennan.edu](mailto:Helpdesk@mclennan.edu) for help.

**Forwarding Emails:**

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

**Disclaimer:**

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.