

MATH 2320, Differential Equations, P01 Spring 2024

## **Department of Mathematics**

Instructor:	Saroj P. Pradhan PhD	
Section # and CRN:	P01, 23691	
Office Location:	W.R. Banks, Room 301 J	
Office Phone:	936-261-2085	
Email Address:	sppradhan@pvamu.edu	
Office Hours:	TR 2:00 PM – 3:00 PM, W 9:30 AM – 2:30 PM	
Mode of Instruction:	Face to Face	
Course Location:	W R Banks Bldg 317	
Class Days & Times:	TR 12:30 PM – 1:50 PM	
Catalog Description:	<b>MATH 2320. Differential Equations I.</b> (3-0) Credit 3 semester hours. C equations with emphasis on first-order linear and higher order ordinary dif with constant coefficients and some non-constant coefficients. Applications	ferential equations
Prerequisites:	MATH 2414, Calculus II	Difference and Differential
Co-requisites:	None	Equations with Applications
Required Text(s):	Difference and Differential Equations with Applications in Queueing Theory, by A.M. Haghighi and D.P. Mishev, <i>John Wiley &amp; Sons, Inc., NJ</i> , 2013, ISBN: 978-1-118-39324-6, http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118393244.html	in Queueing Theory
Recommended Text(s):	Not Necessary	Dimitar P. Mishev

Course Learning Objectives:

	Upon successful completion of this course, students will be able to:	Student Learning Outcome # Alignment	Core Curriculum Objective Alignment
1	Identify and distinguish ordinary and partial differential equations.	#1, #3	#1
2	Use computer technology to solve differential equations and systems numerically, and visualize and interpret their results.	#1, #3	#1, #3
3	Realize that a real-world application problem could only be described well by differential equations which may involve lots of variables.	#1, #3, #4	#1, #2
4	Find general and particular solutions of first and second-order linear differential equations, and solve linear systems of differential equations.	#1, #3	#1, #3
5	Show how to <i>translate</i> real-world problems, or problems from the field of work, into the language of differential equations, <i>solve</i> the resulting differential equations subject to given conditions, and <i>interpret</i> the solutions obtained.	#2, #4	#1, #3
6	Apply Generating Functions Method to solve Difference and Differential- Difference Equations.	#1, #3, #4	#1, #3

SYLLABUS

# **Student Learning Outcomes:**

- 1. Demonstrate basic mathematical computational skills and distinguish uses of concepts in Calculus, Algebra, and Applied Mathematics.
- 2. Demonstrate the ability to write mathematically rigorous proofs.
- 3. Demonstrate the ability to perform advanced mathematical computations.
- 4. Students will demonstrate the ability to communicate mathematical ideas, both orally and in writing.

# **Core Curriculum Learning Outcomes:**

- 1. Critical Thinking Skills
- 2. Communication Skills
- 3. Teamwork

- 4. Empirical and Quantitative Skills
- 5. Personal Responsibility
- 6. Social Responsibility

# **Major Course Requirements**

- 1. Purchase the textbook
- 2. Study as needed
- 3. Do all assignments and exams

# Method of Determining Final Course Grade

Weights for the percentage course mark		Value	Total
		50/	
1.	Attendance	5%	
2.	Homework (average)	15%	
3.	Project # 1	5%	
4.	Exam 1	10%	
5.	Midterm, Exam 2	20%	
6.	Project # 2	5%	
7.	Exam 3	10%	
8.	Project # 3	5%	
9.	Final Exam (comprehensive)	25%	
	Total		100%

### Grading Criteria and Conversion:

- A: Final average score: greater than or equal to 90%
- B: Final average score: greater than or equal to 80% and less than 90%
- C: Final average score: greater than or equal to 70% and less than 80%
- D: Final average score: greater than or equal to 60% and less than 70%
- F: Final average score: less than 60%

If a student has stopped attending the course (i.e., "stopped out") at any point after the first day of class but did not officially withdraw from the course and has missed assignments and exams, including the final exam, and performed below the grade level of a D, a grade of FN (failed-non-attendance) will be assigned for the final course grade to ensure compliance with the federal Title IV financial aid regulations. In contrast, if the student has completed all assignments and exams, including the final exam, but performed below the grade level of a D, a grade of F will be assigned for the final course grade.

# **Course Procedures and Additional Instructor Policies**

- (i) There are three required projects due in weeks 5, 10, and 15. These projects are to be group-projects and the results should be uploaded on Canvas (as pdf files).
- (ii) Each student enrolled in this course is supposed to find two other students in the class (though communications with them any way possible).
- (iii) Each student is required to give me the names of the other two partners by the end of the second week of the course, Sunday, January 28, 2024.
- (iv) The result of each project should be uploaded by each student individually.
- (v) Add a page on the project sheets provided to you that should include the title of the project with the name of the student and his/her project partners under it.
- (vi) Each project has a maximum of 5%, that is, the maximum total projects' scores will be 15% for the course.
- (vii) MATLAB is a software that is available on campus free for all students. The questions that involve MATLAB, are voluntary questions. You will receive maximum of 2 EXTRA CREDIT points for each of such questions.

	Semester Calendar	
	(subject to change by Instructor of the course's announcement by e-mail):	
Week	Topics	
	Tuesday, January 16, 2024 - Sunday, January 21, 2024	
	Review: Method of Integrations	
	3.1. Basic Concepts and Definitions	
1	HW # 1	
	Monday, January 22, 2024- Sunday, January 28, 2024	
	3.2. Existence and Uniqueness	
2	3.3. Separable Equations; Method of Solving Separable Differential Equations; Logistic Equation	
	HW <mark>#</mark> 2	
3	Monday, January 29, 2024 - Sunday, February 4, 2024	
	3.4. Linear Differential Equations; Method of Solving a Linear First-Order	
	Differential Equation	
	3.5. Exact Differential Equations	
	HW # 3	

4	Monday. February 5, 2024 - Sunday, February 11, 2024 Review for Exam 1	
	Exam 1, Thursday, February 8, 2024	
-		
5	Monday, February 12, 2024 - February 18, 2024 3.5. Exact/Non-Exact Differential Equations; Integrating Factor	
	3.6. Solution of the First ODE by Substitution Method and Reduction to Separation	
	of Variables; Homogeneous Differential Equations	
	Project #1, Due February 16, 2024	
6	Monday, February 19, 2024 - February 25, 2024	
	3.6. Solution of the First ODE by Substitution Method and Reduction to Linear	
	Equation; Bernoulli Differential Equations	
	3.6. Solution of the First ODE by Substitution Method and Reduction to Separation	
	of Variables; Linear Substitution	
	HW # 4	
_	Monday, February 26, 2024 - March 3, 2024	
7	3.7. Applications of the First-Order ODEs; Newton's Law of Cooling 3.8. Second-Order Homogeneous ODE	
	3.8.1. Solving a Linear Homogeneous Second-Order Differential Equation with	
	constant coefficients; Linearity Condition. Real Roots of the Characteristic	
	Equation	
	HW # 5	
8	Monday, March 4, 2024 - March 10, 2024	
	Midterm Exam, Thursday, March 7, 2024	
	(Exam 2)	
9	Monday, March 11, 2024 - March 16, 2024	
	Spring Break	
10	Monday, March 18, 2024 - March 24, 2024	
	3.8.1. Solving a Linear Homogeneous Second-Order Differential Equation with	
	constant coefficients: Complex Roots of the Characteristic Equation	
	3.9. The Second-Order Nonhomogeneous Linear ODE with Constant Coefficients;	
	The Principle of Superposition	
	3.9.1. Method of Undetermined Coefficients: Type I	
	Project #2, Due March 22, 2024	
11	Monday, March 25, 2024 – March 31, 2024	
	3.9.1. Method of Undetermined Coefficients: Type II	
	3.9.2. Variation of Parameters Method	
12	HW # 6 Monday, April 1, 2024 - April 7, 2024	
12	3.9.2. Variation of Parameters Method	
	3.10. Miscellaneous Methods for Solving ODE	
	3.10.1. Cauchy-Euler Equation	
	Monday, April 8, 2024 - April 14, 2024	
13	Review for Exam 3	
	Exam 3, Thursday, April 11, 2024	
	Monday, April 15, 2024 - April 21, 2024	
14	3.10. Miscellaneous Methods for Solving ODE	
	2.2. Laplace Transform. The First Shifting Theorem	
15	4.1. Difference Equations Monday, April 22, 2024 – April 28, 2024	
15	3.10.3. Application of Laplace Transform to Solve ODE and System ODE	
	4.4. System of Linear Difference Equations. Generating Functions Method	
	4.5. Differential–Difference Equations	
	Project #3, Due April 26, 2024	
	$10jc01\pi0, Duc April 20, 2024$	

16	Monday, April 29, 2024 – May 5, 2024 Review for Final Exam
	Final Exam You have 120 minutes to do the exam at one try and 30 minutes to upload. Portal will be open 6:00 am through 11:59 pm.

# **Course Procedures or Additional Instructor Policies**

- 1. Use of various technologies is allowed and encouraged only for homework (HW) assignments. However, students are strongly encouraged to make sure understand the problem and the solution rather than just copy from different sources. Justification of solutions in non-automated HW assignments is required,
- 2. All tests, quizzes, projects, and final exam must be taken in Canvas.
- 3. If you missed the assignment or final Exam, your grade on this assignment or final exam will be 0.
- 4. The final exam cannot be given early because "I have to be gone during the final".
- 5. There is no retake of any exam.
- 6. There is no extra credit work given to "improve my grade".

All forms of academic dishonesty including, but not limited to cheating, plagiarism, and collusion are serious offenses. Possible consequences for academic dishonesty include a grade a 0 or F in the particular assignment, failure in the course, and/or recommendations for probation or dismissal from the institution.

# **Student Support and Success**

## John B. Coleman Library

The John B. Coleman Library's mission is to enhance the scholarly pursuit of knowledge, to foster intellectual curiosity, and to promote life-long learning and research through our innovative services, resources, and cultural programs, which support the Prairie View A&M University's global mission of teaching, service, and research. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. Website: <u>https://www.pvamu.edu/library/;</u> Phone: 936-261-1500

### **Academic Advising Services**

Academic Advising Services offers students a variety of services that contributes to student success and leads towards graduation. We assist students with understanding university policies and procedures that affect academic progress. We support the early alert program to help students get connected to success early in the semester. We help refer students to the appropriate academic support services when they are unsure of the best resource for their needs. Faculty advisors support some students in their respective colleges. Your faculty advisor can be identified in PantherTracks. Advisors with Academic Advising Services are available to all students. We are located across campus. Find your advisor's location by academic major at <a href="http://www.pvamu.edu/advising">www.pvamu.edu/advising</a>. Phone: 936-261-5911

# The University Tutoring Center

The University Tutoring Center (UTC) offers free tutoring and academic support to all registered PVAMU students. The mission of the UTC is to help provide a solid academic foundation that enables students to become confident, capable, independent learners. Competent and caring staff and peer tutors guide students in identifying, acquiring, and enhancing the knowledge, skills, and attitudes needed to reach their desired goals. Tutoring and academic support are offered face-to-face in the UTC, in virtual face-to-face sessions (<u>https://www.pvamu.edu/student-success/sass/university-tutoring-center/</u>), and through online sessions (<u>https://www.pvamu.edu/pvplace/</u>). Other support services available for students include Supplemental Instruction, Study Break, Academic Success Workshops, and Algebra Study Jam. Location: J. B. Coleman Library, Rm. 307; Phone: 936-261-1561; Email: pvtutoring@pvamu.edu; Website: https://www.pvamu.edu/student-success/sass/university-tutoring-center/

# Writing Center

The Writing Center provides well-trained peer tutors to assist students with writing assignments at any stage of the writing process. Tutors help students with various writing tasks from understanding assignments, brainstorming, drafting, revising, editing, researching, and integrating sources. Students have free access to Grammarly online writing assistance. Grammarly is an automated proofreading and plagiarism detection tool. Students must register for Grammarly by using their student email address. In addition, students have access to face-to-face and virtual tutoring services either asynchronously via email or synchronously via Zoom. Location: J. B. Coleman Library, Rm.

209; Phone: 936-261-3724; Website: <u>https://www.pvamu.edu/student-success/writing-center/;</u> Grammarly Registration: https://www.grammarly.com/enterprise/signup

# Academic Early Alert

Academic Early Alert is a proactive system of communication and collaboration between faculty, academic advisors, and PVAMU students that is designed to support student success by promptly identifying issues and allowing for intervention. Academic Early Alerts help students by providing a central location to schedule advising appointments, view advisor contact information, and request assistance. Students who recognize that they have a problem that is negatively affecting their academic performance or ability to continue school may self-refer an Academic Early Alert. To do so, students will log in to PV Place and click on Academic Early Alert on the left sidebar. Phone: 936-261-5902; Website: <a href="https://www.pvamu.edu/student-success/early-alert/">https://www.pvamu.edu/student-success/early-alert/</a>

## **Student Counseling Services**

The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and assists students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Hobart Taylor, 2<sup>nd</sup> floor; Phone: 936-261-3564; Website: <a href="https://www.pvamu.edu/healthservices/student-counseling-services/">https://www.pvamu.edu/healthservices/student-counseling-services/</a>

# Office of Testing Services

Testing Services serves to create opportunities by offering a suite of exams that aid in the students' academic and professional success. Currently, we administer entrance (HESI A2), college readiness (TSI assessment), Prior Learning (CLEP, DSST), and proctored exams. Location: Wilhelmina Delco, 3<sup>rd</sup> Floor, Rm. 305; Phone: 936-261-3627; Email: <u>aetesting@pvamu.edu</u>; Website: <u>www.pvamu.edu/testing</u>

## Office of Diagnostic Testing and Disability Services

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, contact the Office of Disability Services. As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hard and software, adapted furniture, proctoring non-standardized test administrations, ASL interpreters, ALDs, digital recorders, Livescribe, and a comprehensive referral network across campus and the broader community. Location: Hobart Taylor, Rm. 1D128; Phone: 936-261-3583; Website: <a href="https://www.pvamu.edu/disabilityservices/">https://www.pvamu.edu/disabilityservices/</a>

# Center for Instructional Innovation and Technology Services (CIITS)

Distance Learning, also referred to as Distance Education, is the employment of alternative instructional delivery methods to extend programs and services to persons unable to attend college in the traditional manner. The Center for Instructional Innovation and Technology Services (CIITS) supports student learning through online, hybrid, web-assist, and 2-way video course delivery. For more details and contact information, visit: https://www.pvamu.edu/dlearning/distance-learning-2-2/students-2/; Phone: 936-261-3283

### Veteran Affairs

Veterans Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: Evans Hall, Rm. 102; Phone: 936-261-3563; Website: <a href="https://www.pvamu.edu/sa/departments/veteranaffairs/">https://www.pvamu.edu/sa/departments/veteranaffairs/</a>

## Office for Student Engagement

The Office for Student Engagement delivers comprehensive programs and services designed to meet the cocurricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development, and campus governance. Location: Memorial Student Center, Rm. 221; Phone: 936-261-1340; Website: <u>https://www.pvamu.edu/studentengagement/</u>

# **Career Services**

Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Anderson Hall, 2<sup>nd</sup> floor; Phone: 936-261-3570; Website: <a href="https://www.pvamu.edu/careerservices/">https://www.pvamu.edu/careerservices/</a>

## **University Rules and Procedures**

## Academic Misconduct

Academic dishonesty is defined as any form of cheating or dishonesty that has the effect or intent of interfering with any academic exercise or fair evaluation of a student's performance. The college faculty can provide additional information, particularly related to a specific course, laboratory, or assignment.

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with the *University Administrative Guidelines on Academic Integrity*, which can be found on the <u>Academic Integrity webpage</u>. Students who engage in academic misconduct are subject to university disciplinary procedures. As listed in the *University Administrative Guidelines on Academic Integrity*, the University Online Catalog, and the Student Code of Conduct, the following are examples of prohibited conduct. This list is not designed to be all-inclusive or exhaustive. In addition to academic sanctions, any student found to have committed academic misconduct that is also a violation of criminal law may also be subject to disciplinary review and action by the Office of Student Conduct (as outlined in the Student Code of Conduct).

## Forms of Academic Dishonesty:

- 1. <u>Cheating</u>: Deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not learned, giving or receiving aid unauthorized by the instructor on assignments or examinations. Examples: unauthorized use of notes for a test; using a "cheat sheet" on a quiz or exam; any alteration made on a graded test or exam which is then resubmitted to the teacher;
- 2. <u>Plagiarism</u>: Careless or deliberate use of the work or the ideas of another; representation of another's work, words, ideas, or data as your own without permission or appropriate acknowledgment. Examples: copying another's paper or answers, failure to identify information or essays from the internet and submitting or representing it as your own; submitting an assignment which has been partially or wholly done by another and claiming it as yours; not properly acknowledging a source which has been summarized or paraphrased in your work; failure to acknowledge the use of another's words with quotation marks;
- 3. <u>Collusion</u>: When more than one student or person contributes to a piece of work that is submitted as the work of an individual;
- 4. <u>Conspiracy</u>: Agreeing with one or more persons to commit an act of academic/scholastic dishonesty; and
- 5. <u>Multiple Submission</u>: Submission of work from one course to satisfy a requirement in another course without explicit permission. Example: using a paper prepared and graded for credit in one course to fulfill a requirement and receive credit in a different course.

## Nonacademic Misconduct

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. The Office of Student Conduct will adjudicate such incidents under nonacademic procedures.

# Sexual Misconduct

Sexual harassment of students and employees at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating the university's sexual harassment policy will be subject to disciplinary action. In accordance with the Texas A&M University System guidelines, your instructor is obligated to report to the Office of Title IX Compliance (titleixteam@pvamu.edu) any instance of sexual misconduct involving a student, which includes sexual assault, stalking, dating violence, domestic violence, and sexual harassment, about which the instructor becomes aware during this course through writing, discussion, or personal disclosure. The faculty and staff of PVAMU actively strive to provide a learning, working, and living environment that promotes respect that is free from sexual misconduct, discrimination, and all forms of violence. If students, faculty, or staff would like assistance or have questions, they may contact the Title IX Coordinator at 936-261-2144 or titleixteam@pvamu.edu. More information can be found at www.pvamu.edu/titleix, including confidential resources available on campus.

# Pregnancy, Pregnancy-related, and Parenting Accommodations

Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related conditions, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Disability Services or the Dean of Students' Office for additional information and to request accommodations.

# Non-Discrimination Statement

Prairie View A&M University does not discriminate on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or gender identity in its programs and activities. The University is committed to supporting students and complying with The Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of discrimination or harassment, we encourage you to report it. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Director of Equal Opportunity & Diversity has been designated to handle inquiries regarding the non-discrimination policies and can be reached at Harrington Science Building, Suite 109 or by phone at 936-261-1744 or 1792.

# Class Attendance Policy (See the University Online Catalog for Full Attendance Policy)

Prairie View A&M University requires regular class attendance. Attending all classes supports the full academic development of each learner, whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or the internet. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in the assignment of a grade of "F." Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University's attendance policy in each course syllabus.

# **Student Academic Appeals Process**

Authority and responsibility for assigning grades to students rest with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the University Online Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

# **Technical Considerations**

# Minimum Recommended Hardware and Software:

- Intel PC or Laptop with Windows 10 or later version; Mac with OS High Sierra\*
- Smartphone or iPad/Tablet with Wi-Fi\*
- High-speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, or Firefox

Note: Be sure to enable Java & pop-ups in the Web browser preferences

\* Smartphones, Google Chrome books, and Android tablets may not be supported. iPads are the only tablets supported.

## Participants should have a basic proficiency of the following computer skills:

- Sending and receiving email
- A working knowledge of the Internet
- Microsoft Word (or a program convertible to Word)
- Acrobat PDF Reader
- Windows or Mac OS
- Video conferencing software

## Netiquette (online etiquette)

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussion boards. Foul or abusive language will not be tolerated. Do not use ALL CAPS for communicating to others AS IT CAN BE INTERPRETED AS YELLING. Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you." Limit and possibly avoid the use of emoticons. Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post, and the message might be taken seriously or sound offensive.

## Video Conferencing Etiquette

When using Zoom, WebEx, or other video conferencing tools, confirm the visible area is tidy, clear of background clutter, inappropriate or offensive posters, and other distractions. Ensure you dress appropriately and avoid using high traffic or noisy areas. Stay muted when you are not speaking and avoid eating/drinking during the session. Before the class session begins, test audio, video, and lighting to alleviate technology issues.

## **Technical Support**

Students should go to <u>https://mypassword.pvamu.edu/</u> if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Center for Instructional Innovation and Technology Services at 936-261-3283 or email ciits@pvamu.edu.

### **Communication Expectations and Standards**

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

### **Discussion Requirement**

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can occur in a seminar fashion. The use of the discussion board will accomplish this. The instructor will determine the exact use of discussion boards.

**It is strongly suggested** that students type their discussion postings in a word processing application such as Word and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, copy and paste to the discussion board.

# COVID-19 Campus Safety Measures [NOTE: Delete this section when the COVID-19 pandemic is over]

To promote public safety and protect students, faculty, and staff during the coronavirus pandemic, PVAMU has adopted policies and practices to limit virus transmission.

- **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.
- Face Coverings Face coverings (cloth face covering, surgical mask, etc.) are recommended in classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource, and support offices, and outdoor spaces where 6 feet of physical distancing is challenging to maintain reliably.
- **Physical Distancing** Physical distancing should be maintained between students, instructors, and others in course and course-related activities where possible.
- Personal Illness and Quarantine Students required to quarantine are to participate in courses and courserelated 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. Students experiencing personal injury or illness that is too severe for the student to attend class qualify for an excused absence. To receive an excused absence, students must provide appropriate documentation to the Office for Student Conduct, studentconduct@pvamu.edu.