

**CIS 4335-110, 10113, Unix System Administration and Programming**  
Spring 2019  
Texas A&M University - Central Texas

**COURSE DATES, MODALITY, AND LOCATION**

**Course Dates:** Tuesdays and Thursdays, 1:00-2:15

**Modality:** Face to Face

**Location:** Founders Hall, Room 308

**INSTRUCTOR AND CONTACT INFORMATION**

**Instructor:** Emmet Gray

**Office:** no office

**Phone:** no phone, COBA Admin - (254) 519-5437

**Email:** Canvas Inbox (preferred) or TAMUCT email (e.gray@tamuct.edu)

**Office Hours:**

No office hours, but I can meet with students at the university by appointment.

**Mode of instruction and course access:**

This a face-to-face course that makes extensive use of the TAMUCT Canvas Learning Management System (<https://tamuct.instructure.com>). The course syllabus, schedule, supplemental readings, class announcements, power point slides, learning modules, homework assignments, exams and other course related documents will be posted on Canvas. Each student is responsible for the posted material, and should check Canvas several times a week for updates

**Student-instructor interaction:**

I typically respond to Canvas email within 24 hours except on weekends. I can meet with students at the university by appointment.

**911 Cellular:**

Emergency Warning System for Texas A&M University – Central Texas

911Cellular 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 911 Cellular through their myCT email account.

In an effort to enhance personal safety on the Texas A&M University – Central Texas (TAMUCT) campus, the TAMUCT Police Department has introduced Warrior Shield by 911

Cellular. [Warrior Shield](https://www.tamuct.edu/police/911cellular.html) [https://www.tamuct.edu/police/911cellular.html] can be downloaded and installed on your mobile device from Google Play or Apple Store.

Connect at 911Cellular [https://portal.publicsafetycloud.net/Texas-AM-Central/alert-management] to change where you receive your alerts or to opt out. By staying enrolled in 911Cellular, university officials can quickly pass on safety-related information, regardless of your location.

## COURSE INFORMATION

### Course Overview and description:

Examine the underlying conceptual considerations of the UNIX operating system and its variants in mainframe, minicomputer, server and microcomputer application environments. Explore memory and process management, multi-programming and processing, interrupt structure, and parallel processing mechanisms and procedures. Special emphasis on practical application of configuration and programming of selected UNIX systems. Prerequisite(s): CIS 3305 or 12 hours of CIS courses or permission of department chair.

### Course Objective:

This course is an introduction to the Linux operating system, and covers the essential duties of a system administrator, such as: installing the OS, controlling access, adding hardware, automating tasks, overseeing backups, installing and upgrading software, and vigilantly monitoring security.

### Student Learning Outcomes:

A student successfully completing this course will be able to:

- Use the Linux shell, navigate the file system, and use common commands
- Demonstrate the ability to install and configure a Linux server
- Explain the concepts of authentication, authorization, and controlling user access
- Identify the steps in adding physical hardware
- Demonstrate the ability to automate simple admin tasks
- Describe the concepts of the file system and network access
- Explain basic software installation and management tasks
- Demonstrate an understanding of security technologies

### Competency Goals Statements (certification or standards):

Section not used

### Required Reading and Textbook(s):

Required:

*UNIX and Linux System Administration Handbook, 5th Edition*

Authors: Nemeth, Snyder, Hein, Whaley & Mackin

Publisher: Addison-Wesley Professional

Edition: 5th

ISBN: 978-0-13-427755-4

*The Linux Command Line, 4th Internet Edition*

Author: William Shotts

Publisher: No Starch Press

Edition: 4th

ISBN: 978-1-59327-389-7

Available free online at: <http://linuxcommand.org/tlcl.php>

*Note: An electronic version of the books may be available.*

*Note: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.*

**Supplemental Material:**

The course textbook will be supplemented with other materials including lecture notes, handouts, oral presentations, industry articles, research paper readings, case studies, Power Point presentations etc.

**Required Reading:**

The student is expected to read and review all material presented in the assigned chapter prior to class.

# COURSE REQUIREMENTS

## Course Requirements

**Examinations:** There will be two exams, one midterm and one final exam. Each is worth 15 points. The midterm covers TLCL chapters 1-12,19 / UALSAH chapters 1-6, and the final covers UALSAH chapters 7-31. Exams will be taken during class and will be timed.

**Quizzes:** There will be 6 take-home small quizzes. Each quiz is worth 5 points. The quizzes will be available via Canvas for a short period of time (typically 1 week), be completed in one session, and be will timed.

**Assignments:** There will be 6 take-home assignments. Each assignment will be worth 5 points. Assignments will typically be available on Canvas for 2 weeks. Multiple submissions are typically allowed. If an assignment has multiple files, you will be required to “zip” the files prior to submission via Canvas.

**Term Project:** There will be 1 term project that will be worth 10 points. This assignment will typically be available on Canvas for 4 weeks.

**Point Scores:** The final grade for the course will be based upon the following:

Item	Quantity	Points	Total	Percent
Exams	2	15.00	30	30%
Quizzes	6	5.00	30	30%
Assignments	6	5.00	30	30%
Term Project	1	10.00	10	10%
Total			100	100%

Grade	Points	Percent
A	100 - 90 points	100 - 90%
B	89 - 80 points	89 - 80%
C	79 - 70 points	79 - 70%
D	69 - 60 points	69 - 60%
F	59 - 0 points	59 - 0%

*Note: Point scores are not rounded*

## Grading Criteria Rubric and Conversion

**Exams & Quizzes:** Exams and quizzes will receive a numeric score (0-100) each. Scores will be converted to points and totaled as shown in the example below:

Quiz	Score	Percent	Max Points	Points
Quiz 1	95	95%	5.00	4.75
Quiz 2	100	100%	5.00	5.00
Quiz 3	80	80%	5.00	4.00
Quiz 4	85	85%	5.00	4.25
Quiz 5	86	86%	5.00	4.30
Quiz 6	88	88%	5.00	4.40

**Requirements for Assignments:** Assignments must follow the requirements as stated in the Canvas assignment system; demonstrate the concepts; get proper results; use best practices, and use proper English.

The following grading rubric is used for assignments:

Criterion	% of Grade	Excellent (100%)	Adequate (80%)	Poor (60%)	Not Met (0%)
Assignment Requirements	20%	Meets all the requirements of the assignment	Minor details of the requirements are missing	Significant details of the requirements are missing	Significant portions of the requirements are missing
Chapter Specific Objectives	35%	Fully demonstrates the concepts of the chapter	Applies major and minor concepts of the chapter	Applies only major concepts of the chapter	Chapter concepts not in evidence
Gets proper results/conclusions	25%	No Errors, Gets Proper Results	Minor errors, Gets Proper Results	Minor errors, does not produce proper results	Does not produce proper results
Best Practices	15%	Uses best practices at every opportunity	Minor issues with best practices	Large portions have best practices issues	No best practices in evidence
Spelling, grammar, formatting	5%	No issues	1 or 2 issues	3 or 4 issues	5 or more issues

**File Naming Convention:** Submit your assignments via Canvas using file names with the following format:

CIS4335 [AssignmentID] [LastName.FirstName].[extension]

Example:

CIS4335 Assignment1 Doe.John.docx

**Late Policy:** Exams, Quizzes, and Assignments are due by midnight on the date assigned in Canvas. Typically, this is 11:59 PM on Thursdays. A 5-point penalty will be assessed for each day a requirement is late.

**Posting of Grades:** All student grades will be posted on the Canvas Grade Book and students should monitor their grading status through this tool. Grades will be posted within 7 days after of the due date.

## COURSE OUTLINE AND CALENDAR

### Complete Course Calendar

Week	Class	Date	DOW	Class Activity	What's Due	Notes
1	1	01/15/2019	Tue	Intro & Chapter 1		
1	2	01/17/2019	Thu	Install	Syllabus Quiz	
2	3	01/22/2019	Tue	TLCL Chapters 1-2		
2	4	01/24/2019	Thu	TLCL Chapters 3-4	Assignment 1	
3	5	01/29/2019	Tue	TLCL Chapters 5-6		
3	6	01/31/2019	Thu	TLCL Chapters 7-8	Quiz 1	
4	7	02/05/2019	Tue	TLCL Chapters 9-10		
4	8	02/07/2019	Thu	TLCL Chapters 11-12	Assignment 2	
5	9	02/12/2019	Tue	TLCL Chapter 19		
5	10	02/14/2019	Thu	Chapter 2	Quiz 2	
6	11	02/19/2019	Tue	Chapter 3		
6	12	02/21/2019	Thu	Chapter 4	Assignment 3	
7	13	02/26/2019	Tue	Chapter 5		
7	14	02/28/2019	Thu	Chapter 6	Quiz 3	
8	15	03/05/2019	Tue	Review		
8	16	03/07/2019	Thu	Midterm Exam	Exam (in class)	
		03/12/2019	Tue			Spring Break
		03/14/2019	Thu			Spring Break
9	17	03/19/2019	Tue	Chapter 7		
9	18	03/21/2019	Thu	Chapter 7	Assignment 4	
10	19	03/26/2019	Tue	Chapter 8		
10	20	03/28/2019	Thu	Chapter 10	Quiz 4	
11	21	04/02/2019	Tue	Chapter 12		
11	22	04/04/2019	Thu	Chapter 18	Assignment 5	
12	23	04/09/2019	Tue	Chapter 19		
12	24	04/11/2019	Thu	Chapter 20	Quiz 5	
13	25	04/16/2019	Tue	Chapter 21		
13	26	04/18/2019	Thu	Chapter 22	Assignment 6	
14	27	04/23/2019	Tue	Chapter 27		
14	28	04/25/2019	Thu	Chapter 29	Quiz 6	
15	29	04/30/2019	Tue	Chapter 30		
15	30	05/02/2019	Thu	Chapter 31	Term Project	
16	31	05/07/2019	Tue	Review		
16	32	05/09/2019	Thu	Final Exam	Exam (in class)	



## University Calendar

Date	Activity
03/19/2018	Spring Semester Admissions Application Opens
10/22/2018	Advising Begins for Spring Semester
10/22/2018	Class Schedule Published For Spring Semester
11/01/2018	Deadline for Scholarship Applications for the Spring Semester
11/05/2018	Registration Opens for Spring Semester
11/15/2018	Priority Deadline for International Student Spring Admissions Applications
12/03/2018	Priority Deadline for Spring VA Certification Request
01/02/2019	Priority Deadline for Spring Admissions applications
01/10/2019	Convocation
01/11/2019	Deadline for Tuition and Fee Payments (16- & First 8-Week Classes)
01/14/2019	Add, Drop, and Late Registration Begins for 16- and First 8-Week
01/14/2019	Classes Begin for Spring Semester
01/16/2019	Deadline for Add, Drop, and Late Registration for 16- and First 8-Week Classes
01/21/2019	Martin L. King Jr. Day ( <i>University Closed</i> )
01/22/2019	Deadline to Drop First 8-Week Classes with No Record
01/30/2019	Deadline to Drop 16-Week Classes with No Record
02/22/2019	Student End of Course Survey Opens (First 8-Week Classes)
02/22/2019	Deadline to Drop First 8-Week Classes with a Quit (Q) or Withdraw (W)
03/01/2019	Deadline for Graduation Application for Spring Ceremony Participation
03/01/2019	Deadline for Teacher Education and Professional Certification Applications
03/08/2019	Classes End for First 8-Week Session
03/08/2019	Deadline for Spring Admissions Applications
03/10/2019	Student End of Course Survey Closes (First 8-Week Classes)
03/11/2019	Spring Break – No Class ( <i>University Open</i> )
03/11/2019	Deadline for Faculty Submission of First 8-Week Final Class Grades
03/13/2019	Spring Break – No Class ( <i>University Open</i> )
03/14/2019	Spring Break – No Class ( <i>University Open</i> )
03/15/2019	Deadline for Tuition and Fee Payments (Second 8-Week Classes)
03/15/2019	Deadline for Clinical Teaching Applications
03/15/2019	Spring Break – No Class ( <i>University Open</i> )
03/18/2019	Add, Drop, and Late Registration Begins for Second 8-Week Classes
03/18/2019	Classes Begin for Second 8-Week Session
03/20/2019	Deadline for Add, Drop, and Late Registration for Second 8-Week Classes
03/25/2019	Deadline to Drop Second 8-Week Classes with No Record
04/01/2019	Deadline for GRE/GMAT Scores to Office of Graduate Studies
04/05/2019	Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)
04/12/2019	Deadline for Final Committee-Edited Theses with Committee Approval
04/26/2019	Student End of Course Survey Opens (16- and Second 8-Week Classes)
04/26/2019	Deadline to Drop Second 8-Week Classes with a Quit (Q) or Withdraw (W)

<b>Date</b>	<b>Activity</b>
05/10/2019	Deadline for Applications for \$1,000 Tuition Rebate for Spring Graduation (5pm)
05/10/2019	Deadline for Degree Conferral Applications to the Registrar's Office
05/10/2019	Deadline to Withdraw from the University for 16- and Second 8-Week Classes
05/10/2019	Spring Semester Ends
05/11/2019	Commencement Ceremony Bell County Expo Center 7:00 p.m.
05/12/2019	Student End of Course Survey Closes (16- and Second 8-Week Classes)
05/14/2019	Deadline for Faculty Submission of 16-Week & Second 8-Week Final Class Grades
05/14/2019	Deadline for Thesis to Clear Thesis Office for Spring Semester

# TECHNOLOGY REQUIREMENTS AND SUPPORT

## Technology Requirements.

You will need a way to transport your very large work files to/from school. There are generally two ways to do this:

- Use a personal laptop that you carry to class every day (and not use the PCs in the classroom)
- Use an external hard drive that use on both your home PC and the university's PCs

External hard drives are available for students to borrow from the University for the duration of the semester.

If you choose to purchase an external hard drive, I'd recommend that you get a "self-powered" USB 3.0 based hard drive of at least 250 Gb in size. *I do NOT recommend that you use a USB-Flash drive.*

You will need to install VirtualBox on your PC at home. See: <http://www.virtualbox.org>

Students may be able to obtain copies of Microsoft Office products through the University (see: <http://www.tamuct.edu/departments/informationtechnology/index.php>)

This course will use the A&M-Central Texas Instructure Canvas learning management system. 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.

## 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](mailto: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.*

Technology issues are not an excuse for missing a course requirement – make sure your computer is configured correctly and address issues well in advance of deadlines.

## **COURSE AND UNIVERSITY RESOURCES, PROCEDURES, AND POLICIES**

### **Drop Policy**

If you discover that you need to drop this class, you must complete a Drop Request Form, found through the [Registrar's web page](#):

<https://www.tamuct.edu/departments/business-office/droppolicy.php>

Professors cannot drop students; this is always the responsibility of the student. The Registrar's Office will provide a deadline on the University Calendar for which the form must be completed, signed and returned. Once you return the signed 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, 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 reported 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://tamuct.campuslabs.com/engage/organization/tamuct-student-conduct-panel>].

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](https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0)].

### **Academic Accommodations**

At Texas A&M-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 Department 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 Department of Access and Inclusion

at (254) 501-5831. Any information you provide is private and confidential and will be treated as such.

For more information please visit our [Access & Inclusion webpage](http://www.tamuct.edu/departments/access-inclusion):  
<http://www.tamuct.edu/departments/access-inclusion>.

### **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 the [Student Affairs](https://www.tamuct.edu/student-affairs/index.html) web page [<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](http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf), 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, both on-campus and online. Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, or have any other question, contact Academic Support Programs at (254) 519-5796, or by emailing Dr. DeEadra Albert-Green at [deeadra.albertgreen@tamuct.edu](mailto:deeadra.albertgreen@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 FREE online tutoring and writing support. This tool provides tutoring in over 40 subject areas. Access Tutor.com through Canvas.

### **The University Writing Center**

Located in 416 Warrior Hall, the University Writing Center (UWC) at Texas A&M University – Central Texas is a free workspace open to all TAMUCT students from 10am-4pm Monday-Thursday during the Summer semester (June 5, 2017 to July 27, 2017). Students may arrange a

one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available). Tutors are prepared to help writers of all levels and abilities at any stage of the writing process.

While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. 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. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the University Writing Center is here to help!

Students may arrange a one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available) or by making an appointment via WOnline. In addition, you can email Dr. Bruce Bowles Jr. at [bruce.bowles@tamuct.edu](mailto: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 72,000 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 TAMUCT 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 twenty-four 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 TAMUCT 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 [homepage](https://tamuct.libguides.com/): <https://tamuct.libguides.com/>

## **INSTRUCTOR POLICIES**

### **Policies related to absence, grading, etc.**

- You are responsible for all class material presented during an absence.
- All work is submitted through Canvas and due on the specified due date/time.
- A penalty of 5 points per day is applied to late Exams, Quizzes, and Assignments.
- Most assignments can be submitted multiple times, even after grading
- Late penalties are also applied to resubmitted items
- Missed exams, quizzes, and assignments will receive a grade of zero.

### **My Personal Statement**

- You will receive feedback in the form of graded assignments within 7 days after the due date.
- I want you to read the feedback that I provide to you (your personal grading notes, Canvas emails, and Canvas discussion forums).
- I am almost always available via email and typically respond within 24 hours except on weekends.
- I prefer email over phone conversations

### **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