**Instructor**: Mr. Domingo Molina III **Semester**: Fall 2018

**Phone**: 956-882-6607 (office phone is forwarded to my cell phone for your convenience)

**Email**: [Domingo.Molina@utrgv.edu](mailto:Domingo.Molina@utrgv.edu)

**Office:** SETB 1.518 Brownsville**,** in Edinburg in Eng. 3.284

**Class Meeting Times: 10:40 – 12:05 MW**

**Class**r**oom:** Engineering Building 1.268

**Office Hours:**  Mon & Wed 1:30 noon - 2:20 pm in Edinburg in Eng. 3.284

1:40 - 2:55 pm in Brownsville in my office (please phone me prior to coming to my office)

(Or by appointments)

**Catalog Description:**

An introduction to data communication topics, including data transmission, encoding, data link control, switching, network topologies, protocols, internetworking and data security. Examples of existing networks and network architectures are studied. Equivalent course: CMPE 4345. A student may receive credit in only one course.

Prerequisite: CSCI 2380. 

**Textbook and other Materials:**

# Computer Networking: A Top-Down Approach, 7th Edition

By James Kurose

Keith Ross

ISBN-13: 9780134312798

MCSA 70-410 Installing and Configuring Windows Server 2012 R2

By Don Poulton and David Camardella

ISBN-13 978-0-7897-4880-5

ISBN-10 0-7897-4880-0

Publisher: Pearson

Required Software:

Oracle WM Virtual Box

Microsoft Windows Server 2012 R2

Windows 10

**Course Structure:**

CSCI 4345 consists of lectures and lab assignments. The goals for the labs are to develop networks, network domain components and protocols. The goals of the lectures are to discuss what is done in labs. Most assignments will be done individually but a few will be done in groups. The networks will be developed using virtual machines and free software.

ABET Student Outcomes

(a) An ability to apply knowledge of mathematics, science, and engineering.

(b) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

(c) An ability to function on multidisciplinary teams.

(d) An ability to identify, formulate, and solve engineering problems.

(e) An understanding of professional and ethical responsibility.

(f) An ability to communicate effectively.

(g) A knowledge of contemporary issues.

(h) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Course Learning Outcomes**:

**Detailed learning outcomes:**

The students will develop a computer network that includes basic network domain components and protocols and components including

1. setting up domains and domain controllers

b) directory services and the directory tree

c) setting up and securing the network file system

d) setting up network printing and mail services

1. setting up secure user access
2. setup protocols and customize them on the network

g) using console commands

h) accessing and using applications

i) printing on the network

**Course Grading:**

Tests 70%

(4 exams but one will be dropped from the first 3 exams only. **The last exam will not be dropped.**

Assignments 30%

There will be four proctored exams, but we will only count three exams toward the final grade. Also, if you make a better grade on the final exam, it can replace another proctored exam but not the midterm exam.

**I DO NOT do extra credit at the end of the semester so make sure you get good grades in tests and assignments to earn a good final grade**.

**Grading scale:** A: 90-110 B: 80-89 C: 70-79 D: 60-69 F: 0-59

Homework and Project Assignments (important and please do not ask for exceptions at the end of the semester)

**Course Policies:**

* **Attendance*.*** *I assume that you will attend class, be punctual, remain on task, and stay through the entire class meeting. Lab work is done in and out of class so do not miss class. Lab work done and required to be submitted at the end of class cannot be made up.*
* If you miss more than 10% of the classes without a valid excuse, you will be reported to the Early Warning System program. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Oher acceptable excuses include (but are not limited to) the death of an immediate family member, or an illness requiring a physician's attention.
* **Completion of exams and assignments.**You must take **all** exams and turn in **all** assignments on time. If you miss any of the work for the course, you must speak to me as soon as possible so that I can determine if I will allow you to make up the missed work. Depending on the excuse provided, make-up exams may result in automatic loss of points. All exams must be taken to be able to pass the course, missing anyone will result in an F as a final grade.
* **Assignment Policies.** Even if you work in teams, all assignments are assessed individually. Labs will be graded on correctness, quality, and style.
* **Scholastic integrity.** As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.
* **Course drops.** Students who wish to drop the course should do it **no later than November 18** (last day to officially drop or withdraw). After that drop withdrawal deadline, students will not be allowed to drop or withdraw from classes and will receive one of the following grades: **A, B, C, D, F, I, P, S,** or **U** for a class. Students considering dropping the class should be aware of the “**3-peat rule**” and the “**6-drop**” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.
* You are responsible for saving and backing up your own assignment files. If you lose a file, you must start the assignment over again. I will give NO special consideration or extensions for lost files.

**Communication – IMPORTANT NOTICE:**

It is UTRGV policy that all electronic communication related to university activity/business must use university systems. Thus, you **MUST** communicate with me through **Blackboard Messages** or (if Blackboard is not available) through your **UTRGV** e-mail account.

Whether you send a message in Blackboard or an e-mail through your UTRGV account, please ensure that all your messages have the following:

* + Descriptive subject line.
  + Your name, course number and section (if e-mailing from your UTRGV account), and a clear statement of your question or problem. If you send an attachment, please explain it.
  + An e-mail is a relatively formal communication, so please ensure your language reflects that fact (be polite, avoid acronyms, use punctuation marks, capitalize, etc.). For example, fyi Tina (For your information, this is not acceptable).

**Calendar of Activities**

A list that provides information for students regarding important dates, assignments or activities. The UTRGV academic calendar can be found at <https://my.utrgv.edu/home> at the bottom of the screen, *prior to login*. Some important dates for fall 2018 include:

August 27 First day of classes

August 30 Last day to add a course or register for fall 2018

September 3 Labor Day – NO classes

November 14 Last day to drop a course; will count toward the 6-drop rule

November 22 - 24 Thanksgiving Holiday – NO classes

December 6 Study Day – NO classes

December 7 - 13 Final Exams

December 14 – 15 Commencement Exercises

**Tentative Schedule:**

The specific topics covered in this course are those listed in the detailed class schedule shown below

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** |  | **Monday** | **Wednesday** |
| 15-Jan |  | Course Introduction; What is Computer Science | [Brief] History of Computing |
| 22-Jan |  | Binary values and Number systems | Other Representations |
| 29-Jan |  | Binary Arithmetic | Representing Non-Numeric Data |
| 5-Feb |  | Boolean Algebra | Boolean Algebra; **Test 1** |
| 12-Feb |  | Gates and Circuits | Gates and Circuits |
| 19-Feb |  | Computing Components | CPU and the Instruction Cycle |
| 26-Feb |  | Machine Language; Assembly Language; | **Test 2** |
| 5-Mar |  | Algorithms | Expressing Algorithms (Pseudocode) |
| 19-Mar |  | Algorithms: Decisions and Repetition | Algorithms: Decisions and Repetition |
| 26-Mar |  | Algorithms: Decisions and Repetition | Algorithms: Decisions and Repetition |
| 2-Apr |  | Algorithms: Searching and Sorting | **Test 3** |
| 9-Apr |  | Algorithms: Searching and Sorting | Operating Systems and File Systems |
| 16-Apr |  | Computer Security | ***THANKSGIVING*** |
| 30-Apr |  | Database Systems | Computer devices and sustainability |
| 7-May |  | **Test 4** | **STUDY DAY** |

**Expectations:**

I am committed to quality teaching and to providing you a meaningful experience in this course, but learning is your responsibility so please do your part to receive the maximum benefit from the course.

For this class, **I expect you to**:

* **Unless you give me a valid reason for having them on, please have your electronic devices (cell phones, notebooks, music players, etc.) OFF always (tests, lectures and labs).**
* Attend each class, arriving on time and remaining throughout the entire class meeting. If you have a legitimate and important reason for needing to leave early, please let me know before class starts.
* Complete all assignments and submit them on time (this is very important for you!).
* Interact respectfully with me, the course assistants, and your other classmates.
* Participate in class discussions and activities.
* **Remain on task and focused during class (*i.e.,* no doing homework, engaging in side conversations, web-surfing, reading e-mail, Facebooking, chatting, *etc*. during class).**
* Access your Blackboard account frequently to get information on course policies, assignments, tests, grades, etc. **All information posted on it will be assumed to be known by the student 24 hours later.**
* Do **Not** bring **food** or **drinks** into the lab please. This is a real issue around computers and robots.
* Come speak to me IN PERSON and IMMEDIATELY at the **first** sign that you are having trouble with the class or if you miss assignments, so I can try to help you.

**UTRGV Policy Statements**

*The UTRGV disability accommodation, mandatory course evaluation statement and sexual harassment statement are required on all syllabi.* Additional policy statements are optional, such as those covering attendance, academic integrity, and course drop policies.

**STUDENTS WITH DISABILITIES:** *Required on all syllabi.* Do not modify.

Students with a documented disability (physical, psychological, learning, or other disability which affects academic performance) who would like to receive academic accommodations should contact **Student Accessibility Services (SAS)** as soon as possible to schedule an appointment to initiate services.  Accommodations can be arranged through SAS at any time but are not retroactive.  Students who suffer a broken bone, severe injury or undergo surgery during the semester are eligible for temporary services.

**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 condition, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Accessibility Services for additional information and to request accommodations.

**Student Accessibility Services:**

**Brownsville Campus**: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at [ability@utrgv.edu](mailto:ability@utrgv.edu). **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at [ability@utrgv.edu](mailto:ability@utrgv.edu).

**MANDATORY COURSE EVALUATION PERIOD:** *Required on all syllabi.* Do not modify.

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (<http://my.utrgv.edu>); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available on or about:

Module 1 October 4 – 10

Module 2 November 29 – December 5

Full Fall Semester November 15 – December 5

**ATTENDANCE:** Recommended on all syllabi; may be modified by the instructor as long as it is not inconsistent with UTRGV policy.

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

**SCHOLASTIC INTEGRITY:** Recommended on all syllabi.

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism (including self-plagiarism), and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

**SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:**  *Required on all syllabi.* Do not modify.

In accordance with UT System regulations, your instructor is a “Responsible Employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at [www.utrgv.edu/equity](http://www.utrgv.edu/equity), including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect that is free from sexual misconduct and discrimination.

**COURSE DROPS:** Recommended on all syllabi; may be modified by the instructor as long as it is not inconsistent with UTRGV policy.

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

**STUDENT SERVICES:** Recommended on all syllabi.

Students who demonstrate financial need have a variety of options when it comes to paying for college costs, such as scholarships, grants, loans and work-study. Students should visit the Students Services Center (U Central) for additional information. U Central is located in BMAIN 1.100 (Brownsville) or ESSBL 1.145 (Edinburg) or can be reached by email (ucentral@utrgv.edu) or telephone: (888) 882-4026. In addition to financial aid, U Central can assist students with registration and admissions.

Students seeking academic help in their studies can use university resources in addition to an instructor’s office hours. University Resources include the Learning Center, Writing Center, Advising Center and Career Center. The centers provide services such as tutoring, writing help, critical thinking, study skills, degree planning, and student employment. Locations are:

* Learning center: BSTUN 2.10 (Brownsville) or ELCTR 100 (Edinburg)
* Writing center: BLIBR 3.206 (Brownsville) or ESTAC 3.119 (Edinburg)
* Advising center: BMAIN 1.400 (Brownsville) or ESWKH 101 (Edinburg)
* Career center: BCRTZ 129 (Brownsville) or ESSBL 2.101 (Edinburg)