

BUS 499-02: Data Communications and Networking
California Polytechnic State University – San Luis Obispo
Spring 2019, Course Syllabus and Schedule

LOGISTICS

Class Days/Time/Location: Monday & Wednesday, 4:10-6:00 PM, 03-201

Instructor: Dave Kocsis, Ph.D.

Office: 03-452

Phone: 402-547-6546 (for emergency only)

Email: dkocsis@calpoly.edu (Please put “**BUS 499**” in the subject line)

Snap: Dave Kocsis

Office hours: Tuesday 8:30-11:00 AM; Thursday: 1:00-3:30 PM

Required text and readings:

You may get the textbook from the bookstore, rent or buy on Amazon; some students obtained a PDF last quarter.

- *Business Data Networks and Security, 11th Edition*, by Panko & Panko; published by Pearson, 2019

Technology requirements: Access to email, the World Wide Web, Microsoft Office, Windows command line tools, and Wireshark. You will need Windows – if you have a Mac laptop, stop by the Business Lab to install Parallels + Windows 10.

PolyLearn: Course documents, up-to-date schedule information, and student grades are available through PolyLearn, so check early and often for the latest information.

COURSE DESCRIPTION

This course combines the fundamental concepts of data communications and networking with practical applications in business. It provides a basic understanding of the technical and managerial aspects of business telecommunication, and introduces students to data communications, technical fundamentals, network products, technologies, applications, and services.

LEARNING OBJECTIVES

OCOB requires courses to meet certain learning objectives. Upon completion of BUS 499, you will be able to:

- Apply knowledge to identify opportunities and solve business problems (LO 1.1)
 - Specifically, with a focus on solving business problems using technology
- Exhibit the ability to work in a diverse environment (LO 3.1)
 - Diversity comes in many forms. You will work with others to share knowledge, communicate in classroom discussions, and work in teams while acknowledging the differences and strengths of others
- Demonstrate effective oral communication skills (LO 4.2)
 - You will express yourself in classroom discussions by speaking knowledgeably and effectively, while also actively listening
- Demonstrate effective participation in teams (LO 4.3)

COURSE DELIVERABLES AND GRADING

Your final grade in the course will be determined as follows. See the [due date schedule](#) for due dates.

Description	Points
Individual Assignments	180
Quizzes	30
Team Projects	80
Midterm Exam	100
Final Exam	110
Total	500

Individual Assignments

Homework

Homework will pertain to the major topics of the course and will come from the textbook and hands-on activities. I will post homework to PolyLearn *approximately* ten days before the due date. We will have four homework assignments, each worth 40 points.

Peer Evaluation

This will give you an opportunity to grade and be graded by your teammates (20 points). Thus, your participation with your team is *extremely* important.

Quizzes

We will have 6 *unannounced* quizzes in class. Each quiz will be 5 questions with a time limit of 5 minutes. They will generally come from the textbook's "Test Your Understanding" questions and/or emphasized concepts from class.

Team Projects

Collaboration means working with others to achieve shared and explicit goals. Teams have a specific mission to accomplish these goals. When you get to the workplace, inevitably you will work on teams. Likewise, you will work in a team throughout the quarter working on two small projects. The team projects allow you to combine your growing expertise in data communications and networking with your creative and problem-solving skills. I will provide details separately.

Midterm and Final Exam

The midterm exam will cover all material up to the date of the exam, including assignments, exercises, readings, lectures, and team projects – in short, everything we do. The final exam will cover in depth everything since the midterm plus major foundational concepts we build on from the previous part of the class (i.e., the final is not comprehensive). Exam questions may be exercises, true/false, multiple choice, matching, short answer, and/or short essay.

Final Course Grade

Your final grade in the course is the total points you receive out of the 500 possible points in the course:

Point Range	Letter Grade
≥ 465	A
450-464.9	A-
435-449.9	B+
415-434.9	B
400-414.9	B-
385-399.9	C+
365-384.9	C
350-364.9	C-
335-349.9	D+
315-334.9	D
300-314.9	D-
< 300	F

COURSE POLICIES AND EXPECTATIONS

Academic Integrity and Behavior

This course will be conducted in a manner consistent with official policies of Cal Poly and in a spirit of professionalism and integrity. All students are required to adhere to the highest standards of academic integrity and behavior and must satisfy the Cal Poly [Academic Integrity Policy](#) and [Student Code of Conduct](#). It is the student's responsibility to read, understand, and abide by these policies.

Plagiarism is defined as “an act or instance of using or closely imitating the language and thoughts of another author without authorization and the representation of that author's work as one's own, as by not crediting the original author” (Dictionary.com). Plagiarism is ethically and legally wrong, and I will not tolerate it in any form. Be aware, you must cite your Web sources just as you would sources from printed material. **If you plagiarize any material on any assignment or exam, you will receive a failing grade for the assignment/exam.** Please read Cal Poly's official stance on [cheating, plagiarism, and academic dishonesty](#).

Attendance / Late Arrivals

I expect you to be in class for every class session and to be on time. Not attending class robs you of the opportunity to ask questions, get information about assignments, and generally help you acquire the knowledge you need to do well in this class. Arriving late disturbs the class in progress and is simply rude. Please make a point of being in class and being on time. If you are unable to attend class or will be late, *e-mail me in advance*, so I can tell you what you missed. If you do miss class, it is your responsibility to obtain class notes, assignments, etc. For more information, view [Cal Poly's class attendance policy](#), which includes “excusable” absences, such as religious holidays, official university events, etc.

Late Assignments, Make-ups, and Incompletes

I do allow late assignments, at a penalty of 10% off the score per day. So after ten 10 days, the penalty is 100% off the score (i.e., a zero). Make-ups on quizzes are only allowed for an excusable absence (see previous section). You must email me to make up the quiz.

Make-ups for exams are given only in extreme or unexpected, documented circumstances such as a car accident or serious illness. Of course, for serious illnesses or accidents, get professional help first; worry about this course later (do get documentation). I will *not* give incomplete grades unless there are extraordinary circumstances, as determined by the instructor.

Class Participation

I expect you to contribute regularly in class, both voluntarily and when I call on you. Everything we know about learning says engagement is essential – the more you participate, the more you learn. Class meetings will be a combination of lecture, discussion, and lab exercises. Any use of e-mail, IM, Internet, cellphones, etc. will distract yourself, your classmates, and your instructor. If you use these items during class, I will not stop you. However, be warned, if I see you on your cellphone, reading Facebook, watching a game, etc., I may call on you to answer a question!

Email Policy

Please give me 24 hours to respond to emails on weekdays (although I will likely respond within 2-3 hours). On weekends (starting Friday at 5:00 PM) and holidays, I will respond within 60 hours. *Please afford your classmates and me this same courtesy.* Please put “BUS 499” in the subject line. I will send you emails through PolyLearn, so I urge you to use your Cal Poly email to receive my messages.

Student Support

Accommodations are available for students with verified needs, including taking exams at the DRC or extra time for quizzes/exams. For more information, contact the [Disability Resource Center \(DRC\)](#), Building 124, Room 119, or at (805) 756-1395; sign up as soon as possible. If you have any questions for me about this, I encourage you to email me or stop by my office, and I will respect your privacy and comfort at all times.

The DRC also provides resources for managing stress, taking exams, sleep issues, and so on. Visit [Learning Assistance](#) for detailed resources. The Orfalea College of Business offers support for advising, counseling, tutoring, mentoring, scholarships, and many other ways to help you succeed. Visit [Orfalea Student Services](#) for more information. They also provide [tutoring for BUS 391](#).

The university provides counseling and health services, many of which are free of charge. Visit [Campus Health & Well Being/Counseling](#) for more information. The [Food Pantry](#) provides meal vouchers for students. If you have any issues, or you cannot find a resource, I am always available to help – please do not hesitate to ask.

ROLE OF THE INSTRUCTOR

The instructor is your teacher, supervisor, guide, motivator, and colleague in learning. He must provide enough structure to this experience so you accomplish your objectives, while simultaneously supporting flexibility, creativity, and our differences. The instructor knows a lot of stuff. He worked in the IT department for a large corporation in a prior life and stays in contact with people who continue to do so. However, he does not know everything and is not afraid to say so.

Teaching Philosophy and Diversity Statement

I consider learning to be a process between each student, groups of students, and the instructor, which takes place through a process of discovery, practice, and active reflection. Therefore, I design my classes using active learning pedagogical techniques, where I:

- Encourage reflection, collaboration, and discussion, while embracing diversity within (and outside) the classroom
- Use collaboration techniques and technologies to facilitate learning
- Enhance lectures with real-world experiences and examples

Cal Poly considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Cal Poly expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events. For more information on resources related to diversity and inclusion, please visit the Office of University Diversity & Inclusivity website at diversity.calpoly.edu.

My hope is we all learn from one other. Each of us knows something another person does not know, and the best thing about knowledge is you can give it away while retaining it yourself. One of the instructor's most important tasks is to make sure we all share our knowledge effectively. Another task is to get everyone involved – to communicate a sense of excitement about the tremendous importance of networks in organizations of the 21st century.

YOUR ROLE

All these other components come down to one thing and that is *you*. If you do not invest *yourself* in what we are doing, then we all lose. I ask you to be present physically by attending class on a regular basis, but I also ask you to be present mentally and emotionally. Being present mentally means staying on track each week and getting the most out of the resources provided to you – the text, the assignments, the lectures, and the in-class experiences. Being present emotionally means caring about what you do – and showing it in your work. Two of the most common complaints from recruiters are: 1) They cannot find enough people of quality, and 2) New workers lack the resourcefulness required to succeed. People of quality are people who care about what they do – who do their best work with the best tools available and who put themselves into everything they do. Resourceful people are open-minded, can handle any problem, and are proactive. So here is our challenge – to work together, learn something, and have fun doing it!

Be Resourceful!

If you have any questions regarding the material, assignments, technical issues, and/or other related matters concerning the course, you must take the initiative to find the answers. Sources may include the syllabus, the Frequently Asked Questions Discussion Board, Google, classmates, the textbook, etc. Use these sources! Your classmates may already know the answer to a question – ask them! If you email question to me, I may send a simple reply, such as “please see the syllabus.” The purpose of this encouragement is to improve your quality and resourcefulness, and to prepare you for the real world.

WHO IS DAVE?

I joined Cal Poly in the fall of 2015 as a full-time lecturer. Prior to joining Cal Poly, I was a graduate student in Information Systems and worked as a Research Associate at the University of Nebraska at Omaha (UNO), where I earned my Ph.D. in 2018. In 2009, I earned my M.S. in MIS from UNO. Prior to coming to academia full time in 2012, I worked at a large financial services organization in a variety of IT and management roles for more than 15 years. My progression started as an intern, moving on to a technical associate, LAN Administrator, desktop engineer, and finally distributed systems engineer. My roles included software/hardware/network troubleshooting, IT security, and project management, to name a few. Two desires led me back to school. First, I always wanted to teach...even during those 15 years in industry I always yearned to teach. Second, I wanted to learn something about theory and principles, and applying these to improve practice. Last, this is my last quarter at Cal Poly, as I accepted an Assistant Professor position at the University of Colorado - Colorado Springs. I look forward to spending my last quarter with you, sharing my experiences, and continuing to learn from you!

TENTATIVE COURSE SCHEDULE (SUBJECT TO CHANGE)

Note: I will announce any changes via PolyLearn email. Once announced, you are responsible for changes. I will announce assignments/projects on PolyLearn.

Skim each chapter *by the class period* in this schedule. **Read** each chapter and know the “Test Your Understanding Questions” *after the class period*.

Week	Date	Topic/Activity
1	Apr 3	Introduction to BUS 499 and each other
2	Apr 8	NO CLASS: See “For Next Class” slide in the Intro to BUS 499 slides
	Apr 10	Chapter 1: Core Network Concepts and Terminology
3	Apr 15	Chapter 2: Network Standards Assign teams and team project 1
	Apr 17	Chapter 3: Network Management
4	Apr 22	Chapter 4: Network Security
	Apr 24	
5	Apr 29	Chapter 5: Ethernet (802.3) Switched LANs
	May 1	Continue Chapter 5 Midterm Prep
6	May 6	Midterm
	May 8	Chapter 6: Wireless LANs I
7	May 13	Chapter 7: Wireless LANs II; Assign Team Project 2
	May 15	Return Midterms; Finish Wireless LANs
8	May 20	Chapter 8: TCP/IP Internetworking I
	May 22	Chapter 9: TCP/IP Internetworking II
9	May 28	Note the date: Tuesday follows a Monday schedule Chapter 10: Carrier Wide Area Networks
	May 29	Final Exam Prep
10	June 3	Chapter 11: Networked Applications More Final Exam Prep & Course Wrap-up
	June 5	Final Exam

TENTATIVE DUE DATE SCHEDULE (SUBJECT TO CHANGE)

All assignments and team projects are due **at 11:55 PM**, unless otherwise noted.

Date	Individual Assignments	Team Projects
April 18	Homework 1 (Chapter 1, 2, & 3; other hands-on stuff)	
May 2	Homework 2 (Chapter 4 & 5; other hands-on stuff)	Team Project 1
May 16	Homework 3 (Panko Chapter 6 & 7; other hands-on stuff)	
May 30	Homework 4 (Chapter 8, 9, & 10; other hands-on stuff)	Team Project 2