

a grade of “A” (or “F”). By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

7. Classroom Policies:

You can get policies regarding to the University academic policies from the Student Handbook on the University web-site or in the University catalog.

8. Attendance, Absence, Lateness, Incomplete:

A course grade of “incomplete” will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

9. Course Outcome:

Students who successfully complete this course will:

1. find out which publications have the most traffic or are the most popular sites on the web;
2. have all the tools you need to begin publishing on the Internet;
3. learn how to write content that will capture the attention of the average online reader;
4. develop Internet writing career.

10. Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

11. Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a “0” on their work if they either submit work that isn’t their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

12. Special Needs and Accommodations:

Please address any special problems or needs at the beginning of the quadmester with the instructor. If you are seeking accommodations based on a disability, you should provide a disability data sheet, which can be obtained from the student services office.

13. The Learning Environment:

RNU is committed to providing a positive learning environment in which students of all ages and backgrounds can learn together in a setting that encourages the free exchange of ideas and information. To accomplish this goal, the members of the RNU Board have established the following expectations for learning.

- All backgrounds and cultures are respected.
- During class discussions, everyone feels welcome to participate and a free exchange of ideas takes place.
- All members of the class arrive on time and leave the class only on breaks or in case of emergency.
- Distractions are kept to a minimum. Cell phones and other electronic devices are turned off in class, labs, and library. Students remain seated throughout class and refrain from talking with classmates while another class member or the instructor has the floor.
- Each student turns in work that is his or her own.
- Consideration is always given to other classes that are taking place in adjoining classrooms.
- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

Reagan National University Library Services:

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As an RNU student, you are required to use the RNU online library, as one source, to assist you in completing a required research paper or project.



REAGAN NATIONAL UNIVERSITY

Reagan National University

Syllabus

1. Administrative Information:

Course Number: COM 500

Course Title: Managerial Communication

Credit Hours: 3

Prerequisite: Permission from Instructor

Term: SP 2019

Class Time: Saturday 9:00-12:30

Class Room: 2

Instructor: [REDACTED]

Office Hours: M TU 11:00 AM – 1:00 P. M.

Telephone:

E-Mail: [REDACTED]

Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

2. Course Description:

This course examines the roles of communication networks and strategies in managerial decision making. It studies the challenges exist for creating and implementing effective communication both inside and outside organizations. It also focuses on the role of the communication skills in managing change, organizational conflict, and corporate cultures.

3. Course Objectives:

Upon completion of this course, students will be able to:

- Understand and apply concepts of communication theory as they affect business organizations and the individuals in them.
- Communicate better, knowing that good communicators make better managers and that communication is a dynamic process basic to individuals and organizational life.
- Improve all communication abilities, including thinking, writing, speaking, listening, and the use of technology.
- Learn techniques and skills of correct business research report writing; learn report writing style using an approved style; and, apply the basics of oral communication in a presentation of a project, including, proper speech, organization, use of graphical aids, and effective non-verbal communications.

- Write effective business letters, memorandums, and case studies.

4. Instructional Methods:

Management Communication is highly experiential. Not only will you have the chance to discuss and read about communication ideas and analyze cases, but you will also have opportunities to practice and improve your skills. For example, class sessions may involve written exercises, presentations, or peer feedback interactions. Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

5. Text(s):

Business and Professional Communication in the Global Workplace 3rd Edition, ISBN13: 978-0495567387 by Jr. H. L. Goodall, Sandra Goodall and Jill Schiefelbein.

6. Course Requirements and Grading:

Individual Assignments

Some assignments are designated as individual--such as all writing assignments, some visual aids assignments, and the written examination. By individual effort, we mean no one else is to discuss, read, listen to, comment on, proofread, or even type these documents or visuals.

Group Assignments

Other assignments are designated as group efforts--such as case discussion questions and the group cross-cultural presentation. Please take responsibility for group work representing equal efforts by all team members. If you have a "free rider" problem in the group that you can't solve yourselves, you need to tell us about it.

Due to the abundant amount of material that has to be covered in this class, in addition to the regular class periods, extra class might be necessary.

Examinations

There are two in-class exams and they are scheduled as:

Midterm: 6th class

Final: last class

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Individual assignments 30%
 Term paper 20%

Oral Presentation	15%
Final Exam	35%

No makeup exams!!!

The course grades are assigned as:

90 – 100%	=	A
80 – 89%	=	B
70 – 79%	=	C
Below 70%	=	F

7. Academic Integrity:

To maintain integrity of scholarship, academic honesty is expected of all students. For more information, students should consult the **Student Handbook** and the **University Catalog**.

8. Administrative Issues:

The distribution of certain information about students is governed by the Federal Educational Records Protection Act (FERPA). According to FERPA, student grades may not be posted or given over the phone or the Internet.

The University’s policy concerning “Change of Final Grade” is that the instructor may not change an individual’s final grade without consulting with the Director of the MPA Program. Moreover, such change can be justified only on ground that the instructor makes an error in computing the final grade or the student has a legitimate reason (e.g., medical reason) for missing a scheduled exam or not being able to complete assigned course works on time.

A course grade of “incomplete” will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Warning: Any cheating and plagiarism will result in a failing grade for the course.

9. Attendance, Absence, Lateness:

In accordance with the policies of the Reagan National University, class attendance is required, and classes will start promptly at the schedule time. If you are absent or excessively late, you will receive a score of zero for the participation of that class.

10. Course Outline:

Topics covered must reflect course description/objectives. Topics to be covered in each session, exams and research paper/project due dates must be clearly indicated.

Session and Topics Covered:

Class 1

Communication Strategy

Case: Fletcher Electronics

Readings:

1. Munter, *Guide to Managerial Communication* (GMC), chapter 1
2. Cialdini, "Harnessing the Science of Persuasion," *Harvard Business Review*, October 2001
3. Williams and Miller, "Change the Way You Persuade," *Harvard Business Review*, May 2002

Group Assignment: Be prepared to discuss the following six questions in class, based on the five sections in *GMC*, chapter 1. We encourage you to discuss these questions in advance with your study teams; groups should air all views, not seek to gain consensus.

1. *Communicator strategy:* What was Van Dyke's objective? What management style did he use? What management style do you think he should have used? How would you analyze his credibility in this situation? How would you have enhanced your credibility if you had been Van Dyke?
2. *Audience strategy:* Who was Van Dyke's audience? Who would you have included as an audience? How did he try to appeal to them in his letter? What specific technique(s) would you have used?
3. *Message strategy:* How did Van Dyke structure his letter? How would you have structured it? How would you describe the tone? What tone would you have adopted?
4. *Channel choice strategy:* What channel(s) of communication would you have used?
5. *Culture strategy:* What is your analysis of the Fletcher Company "culture"?
6. *Readings:* How do Cialdini's six aspects of persuasion relate to the five factors for credibility (GMC, page 8-9)?

Group Assignment: Start thinking about your preferred country for the cross-cultural presentation assignment (course packet). As soon as possible, but before 5 pm on November 9, have one person from your group email (b)(6), stating (1) your country, (2) your group number, (3) a student liaison (a person through whom we will communicate with your group), and (4) your group's timetable for this project,

maximizing time spent on presentation skills. (You will be graded on both the timetable itself and how well you follow this timetable).

Class 2

Writing Process and Macrowriting

1. GMC, chapters 2 and 3
2. Ewing, "To Write or Not To Write?"
3. Fielden and Dulek, "How to Use Bottom-Line Writing in Corporate Communications"
4. "Guidelines for Writing Email"
5. "How to Improve Your Feedback Skills"

Individual Assignment: Write a one-page memo to your professor, answering the following three questions. The memo should be single-spaced (double-spaced between paragraphs). If you are unfamiliar with memo format, see *GMC*, page 163. Design your own memo template (using the design criteria in *GMC*, ch. 3); do not use a standard memo template from Word.

1. Explain how Fielden and Dulek's concept of "bottom line-writing" relates to the Audience Memory Curve(*GMC, pages 18-21*)
2. Explain how Fielden and Dulek's concept of "efficiency" relates to *GMC's* concept of "efficiency" (chapter 2).
3. Compare and contrast giving feedback in (1) study group, (2) ManComm writing or speaking class, and (3) your hoped-for future job.

Class 3

Style, Tone, and Microwriting

Case: United Digital Technologies (UDT)

GMC, chapter 4 and skim Appendices

1. Fielden, "What Do You Mean You Don't Like My Style?"
2. GMC, pp. 10-22, chapter 3, and pp. 76-83

Individual Assignments: Complete the Microwriting homework.

Group Assignment: As a group: (1) Discuss the UDT case before you write about it. See the case and assignment details in the course packet.(2)Email country preference

information and timetable(explained on Class 2 assignment, previous page).

Class 4

Cross-Cultural Communication

Reading: Munter, "Cross-Cultural Communication for Managers"

Individual Assignment: As an individual, edit and rewrite the memo.

Class 5

Presentation Structure and Visuals

1. GMC, pages 88-94 (tell/sell presentation structure)
2. GMC, chapter 6 (visual aids)
3. Additions to chapter 6(course packet)
4. Munter and Roxe, "How to Use PowerPoint XP(course packet)"

Individual Assignment:

Prepare a 3-minute recruiting presentation (without visuals) for a company, organization, or college you know well. Bring your outline preferably on a 4x6 inch unlined. We will collect and grade these cards, based on the guidelines on pp. 87-92. Remember to (1) use one card about 5 minutes of speaking, (2) include a grabber and preview, and (3) number your main points only, so they parallel the preview.

Class 6

Visual Aids and Nonverbal Delivery

Readings: GMC, chapter 7 (nonverbal delivery and relaxation)

Individual Assignment: Visual aids assignment, part 2 (to be explained in next class)

Class 7

Impromptu Speaking Exercise

You will be speaking impromptu (that is, without preparation) in front of the entire class and on videotape. You do not need to prepare a presentation. To give everyone a chance to speak, we will have to run class a bit longer than usual.

After-Class Assignment: Complete the "Self Analysis of Impromptu". Before you view your tape, please read the assignment sheet carefully. To get your tape, ask the Feldberg circulation librarian for the class lists to find out which tape you are on. You may check out your tape for 30 minutes and watch it in the Library or elsewhere.

Turn in your Self Analysis at the cross-cultural presentation at the last class. Your impromptu speaking skills will not be graded, only your self analysis will.

Class 8

Corporate Communication: Media

Case: Adolph Coors Company

Readings:

1. Review *Corp Comm*, chapters 1 and 3, except the cases
2. Read *Corp Comm*, chapter 6, including the Coors case

Study questions: See *Corp Comm*, page 124

Class 9

Oral Examination

- Prepare a team cross-cultural project on the country of your choice, referring to the cross-cultural presentation assignment in the course packet.
- You will be given a schedule for the day. At your assigned time, your team will deliver its presentation and provide feedback to three other teams.
- Read the instructions on the "Peer Feedback Packet" before this session. When your group is not speaking, you will provide written peer feedback to the presenting group.

After-Class Assignment: As a group, discuss the issues on the Group Analysis of the Cross-Cultural Presentation (course packet) as soon as possible, but before the last class.

Class 10

Corporate Communication: Crisis

Case: Dow Corning

Readings:

1. *Corp Comm*, chapter 10, including Dow Corning case

2. Argenti, "Crisis Communication: Lessons from 9/11," Harvard Business Review, December 2002.

Study questions: See Corp Comm, page 225.

Class 11

Group Presentation

Class 12

Writing Examination

Group Analysis of the Cross-Cultural Presentation due

The above schedule and procedures are subject to change in the event of extenuating circumstances, in which case students will be notified accordingly.

Term Paper: The Term Paper requires students to write a report for “Managerial Communication For Professional Development”. This paper offers a unique functions approach to managerial skills. It explores what the communication managers actually do in business across the planning, organizing, leading, and controlling. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

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- During class discussions, everyone feels welcome to participate and a free exchange of ideas takes place.
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- Each student turns in work that is his or her own.
- Consideration is always given to other classes that are taking place in adjoining classrooms.
- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

Reagan National University Library Services:

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REAGAN NATIONAL UNIVERSITY

Reagan National University

Syllabus

1. **Administrative Information:**

Course Number:	CSC 121
Course Title:	Computer Science I
Credit Hours:	3
Prerequisite:	No prerequisite
Term:	SP 2019
Class Time:	Thursday 9:00-12:30
Class Room:	2
Instructor:	██████████
Office Hours:	TTH 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	██████████

Revised 2019.10

Instructional Material:

Introductory Technology in Action, edition 15th, Alan Evans, Kendall Martin, Mary Anne Poatsy, ISBN: 978-0134834740, Prentice Hall Publishers

Course Description:

Elementary introduction to statistics. Topics include descriptive statistics, probability, estimation and hypothesis testing for means and proportions, correlation, and regression. Students use statistical software for assignments. (3 credit hours)

Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Course Learning Outcome:

Upon successfully completing this course the student will be able to

- Learn to understand the main features of traditional and modern statistics.
- Learn how to analyze statistical data properly.
- Understand the role of formal statistical theory and informal data analytic methods.
- Gain an understanding of statistical methods relevant to upper division interdisciplinary courses.
- Demonstrate the appropriate level of competence in written expression as demanded by the discipline and as expected of an undergraduate student.

Course Schedule and Outline:

Class	Lecture Topic	Assignment Given	Assignment Due	Textbook Reading
1	Why Computers Matter to You: Becoming Computer Literate			Chapter 1
2	Looking at Computers: Understanding the Parts			Chapter 2
3	Using the Internet: Making the Most of the Web's Resources Application Software: Programs That Let You Work and Play	Home Assignment 1 Delivery		Chapter 3 Chapter 4
4	Using System Software: The Operating System, Utility Programs, and File Management Understanding and Assessing Hardware: Evaluating Your System		Home Assignment 1 Due	Chapter 5 Chapter 6
5	Behind the Scenes: A Closer Look at System Hardware Behind the Scenes: Building Applications			Chapter 9 Chapter 10
6	Mid-Term Examination		Review chapters 1-6, major topics, and key terms	Ch1 –Ch6 Ch9 and Ch10
7	Networking and Security:			Chapter 7

	Connecting Computers and Keeping Them Safe from Hackers and Viruses Mobile Computing: Keeping Your Data on Hand			Chapter 8
8	Behind the Scenes: Networking and Security Behind the Scenes: The Internet: How It Works	Home Assignment 2 Delivery		Chapter 12 Chapter 13
9	Behind the Scenes: Databases and Information Systems Behind the Scenes: Networking and Security in the Business World		Home Assignment 2 Due	Chapter 11 Chapter 12
10	<i>Final Project Presentation</i>	Students do presentations	Final project Due	
11	<i>Final Project Presentation</i>	Students do presentations	Final project Due	
12	<i>FINAL EXAM</i>		Review chapters 7-12, major topics, and key terms	Ch7 - Ch12

Course Requirement and Evaluation:

- Evaluation will occur via quizzes, exams, homework assignments.

THERE IS A 25% REDUCTION IN SCORE FOR EACH LATE ITEM

<i>Assignment</i>	<i>Value</i>
Home works	20%
Mid-Tem Examination	20%
Final Examination	35%
Final Project Paper	15%
Class Participation	10%
<hr/>	
Total	100%

The numerical score is then converted to a letter grade using the following scale:

- Above and including 90 - A
- Above and including 80 - B
- Above and including 70 - C
- Above and including 60 - D
- Below and not including 60 – F

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Final Project Paper:

The final project paper requires students to write a report for “Why are there so many programming languages?” This paper covers the following: When it comes to programming languages, there is a plethora to choose from. Moreover, there are tons of them out there for different applications. The primary function of a computer program is to solve a problem with a set of given instructions (or code). However, if all of them can solve problems, why is there a need for so many? Can’t one program do it all? The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Supporting Material:

Perrin, Robert. (2010). *Pocket Guide to APA Style* Second Edition. New York: Houghton Mifflin Company. This book assists students with the research paper requirements. It is recommended but not required.

Classroom Policies: Attendance, Absence, Lateness, Incomplete policy

- In accordance with the policies of the University, class attendance is required, and classes will start promptly at the scheduled time. If a student does not attend during [three] weeks of the [twelve] Class course, he/she will be referred to designated UNIVERSITY officials or may be subject for an automatic withdrawal from automatic from the course.
- For an on ground courses students are expected to attend every class meeting unless if they have documented (egg Medical, family emergency leave....) reason for missing the class session. Students who have 3 unexcused, (undocumented absentees) will be referred to designated school officials.
- A course grade of “incomplete” will be given only under very unusual circumstances, and only if the student has completed at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

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the online library through the computers and laptops available at home and on campus. Each student must use their own pass code to access the library.

As an RNU student, you are required to use the RNU online library, as one source, to assist you in completing a required research paper or project.



Reagan National University

Syllabus

1. **Administrative Information:**

Course Number:	CSC 122
Course Title:	Computer Science II
Credit Hours:	3
Prerequisite:	CSC 121
Term:	WI 2019
Class Time:	Saturday 9:00-12:45
Class Room:	1
Instructor:	██████████
Office Hours:	M TU 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	██████████

Course Description:

This course continues introduction to basic computer science concepts begun in Computer Science 1. Essentially, this course covers the use of object-oriented programming to design and implement software solutions. Concepts taught include pointers, classes, operator overloading, inheritance, and polymorphism and a high-level language will be used as a vehicle for the further development of these concepts.

Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Textbook:

Invitation to Computer Science, 8th ed. by G. Michael Schneider & Judith L. Gersting. ISBN: 978-1337561914.

Course Objectives:

The successful student in this class will have acquired the knowledge and skills to:

1. implement moderately sized programs that solve practical problems,
2. comfortably read and write programs within the OO paradigm,
3. use and implement abstract data types in the context of OOP
4. independently learn about data structures and present knowledge gained to others,
5. create and maintain web pages that highlight CS knowledge and experience.

Course Outline:

Class	Topics Presented	Reading Assignment	Homework/Lab Assignments
1	General Problem Solving Concepts Beginning Problem Solving Concepts for the Computer	Chapter 1 Chapter 2	
2	Programming Concepts An Introduction to Programming Structure	Chapter 3 Chapter 4	
3	Problem Solving with the Sequential Logic Structure	Chapter 5	Home Assignment 1 Delivery
4	Problem Solving with Decisions	Chapter 6	Home Assignment 1 Due
5	Problem Solving with Loops Problem Solving with the Case Logic Structure	Chapter 7 Chapter 8	
6	<i>Mid-Term Examination</i>		Ch 1- 8
7	Processing Arrays Data Structure	Chapter 9 Chapter 10	

Class	Topics Presented	Reading Assignment	Homework/Lab Assignments
8	File Concepts Linked Lists Tree	Chapter 11 Chapter 12 Chapter 13	Home Assignment 2 Delivery
9	Database Management Systems Concepts of Object Oriented Programming Object Oriented Program Design	Chapter 15 Chapter 16 Chapter 17	Home Assignment 2 Due
10	No Class		
11	<i>Final Project Presentation</i>		Final project Due
12	<i>FINAL EXAMINATION</i>	Review chapters 9 - 17, major topics, and key terms	

Classroom Policies: Attendance, Absence, Lateness, Incomplete policy

- In accordance with the policies of the University, class attendance is required, and classes will start promptly at the scheduled time. If a student does not attend during [three] weeks of the [twelve] Class course, he/she will be referred to designated UNIVERSITY officials or may be subject for an automatic withdrawal from automatic from the course.
- For an on ground courses students are expected to attend every class meeting unless if they have documented (egg Medical, family emergency leave....) reason for missing the class session. Students who have 3 unexcused, (undocumented absentees) will be referred to designated school officials.
- A course grade of “incomplete” will be given only under very unusual circumstances, and only if the student has completed at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Course Requirement and Evaluation:

- Evaluation will occur via quizzes, exams, homework assignments.

THERE IS A 25% REDUCTION IN SCORE FOR EACH LATE ITEM

<i>Assignment</i>	<i>Value</i>
Home works	20%
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Final Examination	35%
Final Research Paper	15%
<hr/>	
Class Participation	10%
Total	100%

The numerical score is then converted to a letter grade using the following scale:

90 – 100%	=	A -
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of A (or F.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Final Research Paper. The final research paper requires students to write a report for “Hardware that Computes the Program”. This paper covers the following: the Central Processing Unit (CPU). The modern-day CPU that we have today contains many microelectronic components. The CPU can be further divided into smaller computing units known as Logical Transistor Gates, commonly known as logic gates. The primary function of these logic gates is to implement three primary operators: AND, OR and NOT gates. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab

assignments.

Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a 0 on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

Special Needs and Accommodations:

Please address any special problems or needs at the beginning of the quadmester with the instructor. If you are seeking accommodations based on a disability, you should provide a disability data sheet, which can be obtained from the student services office.

The Learning Environment:

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- Distractions are kept to a minimum. Cell phones and other electronic devices are turned off in class, labs, and library. Students remain seated throughout class and refrain from talking with classmates while another class member or the instructor has the floor.
- Each student turns in work that is his or her own.
- Consideration is always given to other classes that are taking place in adjoining classrooms.
- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

Reagan National University Library Services:

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Reagan National University

Syllabus

1. Administrative Information:

Course Number: CSC 210

Course Title: Database Management

Credit Hours: 3

Prerequisite: CSC 122

Term: SU 2018

Class Time: Wednesday 9:00-12:30

Class Room: 2

Instructor: [REDACTED]

Office Hours: M W 11:00 AM – 1:00 P. M.

Telephone:

E-Mail: [REDACTED]

2. Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

3. Text:

Modern Database Management, edition 13th, Jeffrey A. Hoffer, Mary B. Prescott, Heikki Topi, ISBN: 978-0-13-477365-0, Prentice Hall Publishers.

4. Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Contribution to Class	10%
Homework	10%
Term paper	20%
Midterm	30%
Final	30%

No makeup exams!!!

The course grades are assigned as:

91 – 100%	-- A
81 – 90%	-- B
71 – 80%	-- C
61 – 70%	-- D
Below 61%	-- F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”). By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Class Schedule

1	introduction; database design and ER models
2	the relational model, relational algebra and SQL
3	storage and indexing
4	the logical-to-physical mapping; a key-value store <i>Problem Set 1 due</i>
5	transactions
6	midterm exam
7	concurrency control <i>Problem Set 2 due</i>
8	recovery and logging
9	semistructured data and XML <i>Problem Set 3 due</i>
10	XML (cont.); object-oriented/object-relational models distributed databases and replication
11	NoSQL performance tuning; wrap-up and conclusions <i>Problem Set 4 due</i>

12	final exam
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5. Classroom Policies:

You can get policies regarding to the University academic policies from the Student's Handbook on the University web-site or in the University catalog.

6. Attendance, Absence, Lateness, Incomplete:

A course grade of "incomplete" will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

7. Course Outcome:

Upon completion of the course, students will:

- Install, configure, and interact with a relational database management system;
- Describe, define and apply the major components of the relational database model to database design;
- Learn and apply the Structured Query Language (SQL) for database definition and manipulation;
- Utilize a database modeling technique for a single entity class, a one-to-one (1:1) relationship between entity classes, a one-to-many (1:M) relationship between entity classes, a many-to-many (M:M) relationship between entity classes, and recursive relationships;
- Define, develop and process single entity, 1:1, 1:M, and M:M database tables;
- Learn and implement the principles and concepts of information integrity, security and confidentiality;
- Apply ethical computing concepts and practices to database design and implementation.

8. Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

9. Term Paper:

The Term Paper requires students to write a report for "Principles to effectively manage data." This paper focuses mostly on how these principles have been developed and implemented for relational databases. But it will also briefly explore how they can be augmented and applied

well beyond relational contexts, to managing text data, emails, scientific databases, and data on the Web. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

10. Internet Use Requirement:

I have included optional homework and project assignments that will require students to use the Internet in order to satisfactorily complete them. Additionally, my web site will maintain copies of supplemental labs and handouts that the student will find beneficial.

11. Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a “0” on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

12. The Learning Environment:

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number of appropriate sources and each student is required to attend an online Library orientation. Assistance is available to help students select and locate appropriate sources when RNU is open. The online library is available to students 24 hours 7 days a week. All students can connect to the online library through the computers and laptops available at home and on campus. Each student must use their own pass code to access the library.

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REAGAN NATIONAL UNIVERSITY

Reagan National University

Syllabus

1. Administrative Information:

Course Number:	CSC 211
Course Title:	Introduction to Digital Logic Design
Credit Hours:	3
Prerequisite:	CSC 122
Term:	FA 2018
Class Time:	F 9:00-12:45
Class Room:	2
Instructor:	██████████
Office Hours:	M TU 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	██████████

Revised 2019.5

Course Description:

This course introduces the basics of electronics and digital systems and is designed to expose students to engineering design and troubleshooting techniques that are used in the electronics field. It covers the basic methods for the design of digital circuits and provides the fundamental concepts used in the design of digital systems. Emphasis is placed on computer components such as adders, comparators, multiplexors, memory, counters, and bus-related circuits.

Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Textbook:

Introduction to Logic Circuits & Logic Design with Verilog (2nd ed.), Brock J. Lameres, July 26, 2017, ISBN: 9783030136055, Springer International Publishing.

Course Learning Outcome:

Upon successfully completing this course the student will be able:

- to apply the principles of Boolean algebra to manipulate and minimize logic expressions.
- to use K-maps to minimize and optimize two-level logic functions up to 5 variables.
- to understand the operation of latches, flip-flops, counters, registers, and register transfers.
- to analyze the operation of sequential circuits built with various flip-flops.
- to analyze the concepts of datapaths, control units, and micro-operations and building blocks of digital systems.

Course Requirement and Evaluation:

Evaluation will occur via quizzes, exams, homework assignments.

THERE IS A 25% REDUCTION IN SCORE FOR EACH LATE ITEM

<i>Assignment</i>	<i>Value</i>
Home works	20%
Mid-Tem Examination	20%
Final Examination	30%
Term Paper	20%
<hr/>	<hr/>
Class Participation	10%
Total	100%

The numerical score is then converted to a letter grade using the following scale:

90 – 100%	=	A-
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of A (or F.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Lecture Schedule—subject to change

<i>Lecture</i>	<i>Content</i>	<i>Reading</i>
<i>1</i>	<i>Introduction</i>	<i>Chapter 1</i>
	<i>Number systems ; Complement Number Representation</i>	<i>Ch. 2 Sections 2.1–2.5</i>

2	<i>Addition, Subtraction, Multiplication, and Division</i>	<i>Ch. 2 Sections 2.6, 2.8, 2.9</i>
	<i>Boolean Algebra, Theorems, Standard Representation of Logic Functions</i>	<i>Ch. 4 Section 4.1</i>
3	<i>Combinational Circuit Analysis</i>	<i>Ch. 4 Section 4.2</i>
	<i>Combinational Circuit Synthesis I</i>	<i>Ch. 4 Section 4.3</i>
4	<i>Combinational Circuit Synthesis II</i>	
	<i>Timing Hazards</i>	<i>Ch. 4 Section 4.4</i>
5	<i>Logic Documentation ; Three-State Devices</i>	<i>Ch. 6 Sections 6.1–6.3, 6.6</i>
	<i>Decoders</i>	<i>Ch. 6 Section 6.4</i>
	<i>Encoders</i>	<i>Ch. 6 Section 6.5</i>
6	<i>Mistern exam</i>	
7	<i>Multiplexers, Exclusive OR Gates, and Parity Circuits</i>	<i>Ch. 6 Sections 6.7, 6.8</i>
	<i>Comparators</i>	<i>Ch. 6 Section 6.9</i>
8	<i>Adders, Subtracters, and ALUs</i>	<i>Ch. 6 Section 6.10</i>
	<i>Sequential Circuits: Latches</i>	<i>Ch. 7 Sections 7.1–7.2.3, Ch. 8 Section 8.2.3</i>
	<i>D Latch ; Flip-Flops</i>	<i>Ch. 7 Sections 7.2.4–7.2.7 Sections 7.2.10, 7.2.11</i>
9	<i>Clocked Synchronous State-Machine Analysis</i>	<i>Ch. 7 Section 7.3</i>
	<i>State Machine Design and Synthesis</i>	<i>Ch. 7 Section 7.4</i>
	<i>Designing State Machines Using State Diagrams</i>	<i>Ch. 7 Sections 7.5–7.7</i>

10	<i>Sequential Logic Design Practices ; Counters</i>	<i>Ch. 8 Sections 8.1, 8.2, 8.4</i>
	<i>Shift Registers</i>	<i>Ch. 8 Section 8.5</i>
11	<i>Introduction to Verilog</i>	<i>Ch. 5 Sections 5.4.1–5.4.6</i>
	<i>Verilog Structural and Behavioral Design</i>	<i>Ch. 5 Sections 5.4.7–5.4.10</i>
	<i>Verilog Time Dimension and Test Benches</i>	<i>Ch. 5 Sections 5.4.11–5.4.15</i>
12	<i>Final Exam</i>	

Term Paper:

The term paper requires students to write a discussion paper for “Design of digital system is a very important part of computer science and electronics, and it increased importance in recent years. Nowadays, digital systems are not only a hardware but also microprocessors, dedicated hardware and soft-ware for them. ” The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Supporting Material:

Perrin, Robert. (2010). *Pocket Guide to APA Style* Second Edition. New York: Houghton Mifflin Company. This book assists students with the research paper requirements. It is recommended but not required.

Classroom Policies: Attendance, Absence, Lateness, Incomplete policy

- In accordance with the policies of the University, class attendance is required, and classes will start promptly at the scheduled time. If a student does not attend during [three] weeks of the [twelve] Class course, he/she will be referred to designated UNIVERSITY officials or may be subject for an automatic withdrawal from automatic from the course.
- For an on ground courses students are expected to attend every class meeting unless if they have documented (egg Medical, family emergency leave....) reason for missing the class session. Students who have 3 unexcused, (undocumented absentees) will be referred to designated school officials.
- A course grade of “incomplete” will be given only under very unusual circumstances, and only if the student has completed at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Academic Honesty:

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Special Needs and Accommodations:

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- Each student turns in work that is his or her own.
- Consideration is always given to other classes that are taking place in adjoining classrooms.
- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

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REAGAN NATIONAL UNIVERSITY

Reagan National University

Syllabus

1. Administrative Information:

Course Number:	CSC 224
Course Title:	Principles of Programming Languages
Credit Hours:	3
Prerequisite:	CSC 122
Term:	FA 2018
Class Time:	W 2:00 – 5:45
Class Room:	1
Instructor:	██████████
Office Hours:	M TU 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	██████████

Course Description:

This course covers the fundamental concepts underlying design of programming languages. It focuses on the formal specification of programming languages such as: syntax, analysis, and semantics; evolution of programming languages and concepts; names and scope; data representation; evaluation sequence at expression, statement, and subprogram levels.

Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Text:

Programming Languages: Principles and Practices: Edition 3, by Kenneth C. Louden Lambert, ISBN: 978-1111529413, Cengage Learning

Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Assignments	20%
Midterm Exam	30%
Final Exam	30%
Term Paper	20%

The course grades are assigned as:

91 – 100%	– A
81 – 90%	– B
71 – 80%	– C
61 – 70%	– D
Below 61%	– F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Term Paper:

Term paper requires students to write a report for “Programming Language And Procedural Programming.” Exploring major paradigms in programming language is Object Oriented programming. In modern software engineering object oriented programming is considered as the major concept, as it allows the programmer to facilitate clean and efficient code. Apart from this, the design patterns of object oriented programming suits well with most of the computing issues. Object oriented programming produces well organized code and also focuses on determinant of productivity. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Course Schedule:

Wk	Topic
1	Introduction and Overview; Design, Specification and Implementation; Reliability & Efficiency; Language Implementation Overview; System Configuration; Introduction to OCaml
2	Getting up to speed in OCaml. Sum types and branching; records, lists, functions, repetition.
3	Syntax, context-free grammars; parsing: bottom-up parsing; top-down recursive descent parsing, Early's algorithm, parser generators, derived forms.

Wk	Topic
4	Natural semantics, Implementing a simple REPL Variables, binding & scope, block structure, substitution & environments; static semantics & type safety.
5	First-order recursive functions; structured types; static & dynamic semantics, natural deduction Models of Polymorphism; parametric polymorphism, type inference, subtyping.
6	Midterm Exam
7	More on polymorphism, function values.
8	Imperative Languages, compiling
9	module systems
10	Survey of recent PLs: Rust, Go, Agda
11	Review and Wrap up
12	Final Exam

Classroom Policies:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments, homework and examinations. You can get policies regarding to the University academic policies from the Student's Handbook on the University web-site or in the University catalog.

Attendance, Absence, Lateness, Incomplete:

A course grade of "incomplete" will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Course Outcome:

At the end of this course, students should be able to:

1. implement the fundamental differences between major programming language paradigms;
2. understand fundamental concepts that underlies in most programming languages;
3. discuss a syntax analyzer for any programming language;

4. present the value of operational and denotational semantic specifications of programming languages;
5. master the process of translation of a program in a high-level language to a low-level language.

Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

Internet Use Requirement:

I have included optional homework and project assignments that will require students to use the Internet in order to satisfactorily complete them. Additionally, my web site will maintain copies of supplemental labs and handouts that the student will find beneficial.

Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a “0” on their work if they either submit work that isn’t their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

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REAGAN NATIONAL UNIVERSITY

Reagan National University

Syllabus

1. **Administrative Information:**

Course Number: CSC 261

Course Title: Introduction to Algorithm

Credit Hours: 3

Prerequisite: CSC 122

Term: SU 2018

Class Time: F 2:00 - 5:45

Class Room: 2

Instructor: [REDACTED]

Office Hours: M W 11:00 AM – 1:00 P. M.

Telephone:

E-Mail: [REDACTED]

Course Description:

This course introduces the techniques for designing efficient computer algorithms and analyzing their running times. It focuses on the particular algorithms for sorting, searching, set manipulation, arithmetic, graph problems, pattern matching. Methods for showing lower bounds on computational complexity will be discussed.

Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Text:

Introduction to Algorithms, ISBN-13: 978-0262033848, third edition.

Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Contribution to Class 10%
Homework 10%

Midterm	30%
Final	50%

No makeup exams!!!

The course grades are assigned as:

91 – 100%	-- A
81 – 90%	-- B
71 – 80%	-- C
61 – 70%	-- D
Below 61%	-- F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Course Schedule:

- Week 1 Fundamentals of algorithms
- Week 2 Time and space complexity
- Week 3 Divide & conquer, recurrence relations
- Week 4 Efficient data structures
- Week 5 Greedy algorithms
 Dynamic programming
- Week 6 Midterm exam
- Week 7 Graph algorithms
- Week 8 Graph algorithms
- Week 9 Graph algorithms
- Week 10 Problems in P and NP
- Week 11 Stable matchings
- Week 12 Final exam

Classroom Policies:

You can get policies regarding to the University academic policies from the Student's Handbook on the University web-site or in the University catalog.

Attendance, Absence, Lateness, Incomplete:

A course grade of "incomplete" will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Course Outcome:

1. Upon completing this course, students should be able to:
2. Define, implement, and use an abstract data type;
3. Design, implement, and evaluate an algorithm to meet desired needs;
4. Apply canonical algorithms for a range of applications;
5. Apply knowledge of computing and mathematics to algorithm design;
6. Design and implement computer program that performs a specified task;
7. Design and development principles in the construction of software systems of varying complexity.

Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

Term Paper:

Term paper requires students to write a report for "the algorithmic design techniques of divide and conquer, greedy, dynamic programming, branch and bound, and graph traversal." For each of these techniques, there are templates and guidelines on when to use and not to use each technique. Many sections contain innovative mnemonics to aid the readers in remembering the templates and key takeaways. Additionally, the book covers NP-completeness and the inherent hardness of problems. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Internet Use Requirement:

I have included optional homework and project assignments that will require students to use the Internet in order to satisfactorily complete them. Additionally, my web site will maintain copies of supplemental labs and handouts that the student will find beneficial.

Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a “0” on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

The Learning Environment:

Reagan National University is committed to providing a positive learning environment in which students of all ages and backgrounds can learn together in a setting that encourages the free exchange of ideas and information. To accomplish this goal, the members of the University Board have established the following expectations for learning.

- All backgrounds and cultures are respected.
- During class discussions, everyone feels welcome to participate and a free exchange of ideas takes place.
- All members of the class arrive on time and leave the class only on breaks or in case of emergency.
- Each student turns in work that is his or her own.

Reagan National University Library Services:

RNU's online collection contains over 60,000 volumes comprised of books, journals, videos, and faculty created resources. The Library Research Portal (library@rnu.edu) provides access to multiple services and authoritative resources for academic research including books, articles, texts, visual media, and teaching resources. Appropriate sources include scholarly and peer-reviewed journal articles,

scholarly books, and well-respected news magazines and newspapers. The Library offers a large number of appropriate sources and each student is required to attend an online Library orientation. Assistance is available to help students select and locate appropriate sources when RNU is open. The online library is available to students 24 hours 7 days a week. All students can connect to the online library through the computers and laptops available at home and on campus. Each student must use their own pass code to access the library.

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REAGAN NATIONAL UNIVERSITY

Reagan National University

Syllabus

1. Administrative Information:

Course Number:	CSC 325
Course Title:	Operating Systems
Credit Hours:	3
Prerequisite:	CSC 122
Term:	FA 2018
Class Time:	Thursday 9:00-12:30
Class Room:	2
Instructor:	██████████
Office Hours:	M W 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	██████████

2. **Course Description:**

This course provides the fundamental principles of operating system design and implementation. The two fundamental tasks of an operating system – to manage a computer's resources and to provide applications with an abstract interface to these resources will be discussed. This course focuses on major OS subsystems: process management, memory management, file systems, and operating system support for distributed systems.

3. **Teaching Procedures:**

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the **QUALITY** of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

4. **Text:**

Learning the Unix Operating System: A Concise Guide for the New User by Jerry Peek, Grace Todino, John Strang, ISBN-13: 978-0596002619.

5. **Course Requirements:**

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Contribution to Class	10%
Homework	10%
Midterm	30%
Term paper	20%

Final 30%

No makeup exams!!!

The course grades are assigned as:

91 – 100%	-- A
81 – 90%	-- B
71 – 80%	-- C
61 – 70%	-- D
Below 61%	-- F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”). By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

COURSE OUTLINE

Class 1. Operating Systems overview

- Components
- Goals of the designer
- System structures
- User services

Class 2. Interrupt Systems and Device Programming

- Interrupt sources and priorities
- Interrupt service routines
- Hardware support - machine states
- Context switching
- Privileged instructions and registers

Class 3. Concurrency Problems and Solutions

- Critical section problem
- Process synchronization and coordination
- Semaphores, special instructions, monitors
- Interprocess communication
- Remote procedure calls
- Special problems of transaction-based systems

Class 4. Deadlock and Resource Conflict

Revised 2019.10

- Prevention
- Avoidance
- Detection
- Recovery

Class 5. Process and Thread management

- Process/thread creation and termination
- Process/thread states and their transitions
- CPU scheduling algorithms
 1. Non-preemptive approaches
 2. Preemptive approaches
 3. Multi-processor considerations

Class 6. Midterm Exam

Class 7. Memory Management

- Major issues: fetch, placement, contiguity, relocation adjustment
- Paging and virtual memory
- Translate-look-aside buffer (associative memory)
- Single and Multi-level page tables
- Paging with segmentation
- Problems of large address spaces and how they are addressed

Class 8. Virtual Storage Management

- Storage hierarchy
- Cache usage
- Partial residency
- Page replacement strategies
- Working sets

Class 9. Physical Storage Management

- Disk seek scheduling
- Disk performance features
- Disk reliability concerns

Class 10. File System Organization

- The boot record - where things start
- Directory organization
- File descriptors
- Access control
- Backup

Class 11. System Security

- Principle of least privilege
- Threats and vulnerabilities
- Protection mechanisms - access and capability control
- User (subject) authentication
- Levels of security in "trusted" systems
- The confinement problem

Class 12. Final Exam

6. Classroom Policies:

Revised 2019.10

You can get policies regarding to the University academic policies from the Student's Handbook on the University web-site or in the University catalog.

7. Attendance, Absence, Lateness, Incomplete:

A course grade of "incomplete" will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

8. Course Outcome:

Upon successful completion of this course, the student will be able to:

1. discuss the installation and configuration of multiple platform operating systems;
2. identify the various components of a computer system and how they interact with an operating system;
3. compare strengths and weaknesses of various operating systems;
4. describe the functions of an operating system (OS);
5. evaluate the tuning and optimization of various operating systems.

9. Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

10. Term Paper:

Term paper requires students to write a report for "Single-user, multi-tasking." This is the type of operating system most people use on their desktop and laptop computers today. Microsoft's Windows and Apple's MacOS platforms are both examples of operating systems that will let a single user have several programs in operation at the same time. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

11. Internet Use Requirement:

I have included optional homework and project assignments that will require students to use the Internet in order to satisfactorily complete them. Additionally, my web site will maintain copies of supplemental labs and handouts that the student will find beneficial.

12. Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a “0” on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

13. The Learning Environment:

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Reagan National University Syllabus

1. **Administrative Information:**

Course Number: CSC 327

Course Title: Data Structure

Credit Hours: 3

Prerequisite: CSC 122

Term: SP 2019

Class Time: Th 9:00-12:45

Class Room: 2

Instructor: [REDACTED]

Office Hours: M TU 11:00 AM – 1:00 P. M.

Telephone:

E-Mail: [REDACTED]

Course Description:

The course provides the concept of data abstraction and the problem of building implementations of abstract data types. It focuses on logical structures of data, their physical representation, design and analysis of algorithms operating on the structures, and techniques for program development and debugging.

Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Textbook:

Nyhoff, R. L. (2018). *ADTs, Data Structures, and Problem Solving with C++* (2nd ed.). Pearson Prentice Hall, ISBN: 0-13-140909-3.

Course Learning Outcome:

Upon successful completion of the course, the student will be able to:

- Organize/structure data
- Design algorithms for various applications
- Code, document, test and debug programs
- Be familiar with the concept of abstract data types (ADTs) and OOD, having
- Reviewed basic data types provided in current programming languages.
- Covered data structures other than those normally provided as basic types in programming languages.
- Have a basic understanding of the different implementations of these data structures.
- Be familiar with searching and sorting algorithms.
- Analyze the computational complexity of these algorithms.
- Know about advanced topics not usually covered in a first course of C++, such as recursion, functions, class templates, overloading
- Demonstrate the appropriate level of competence in written expression as demanded by the discipline and as expected of a graduate student.
- Demonstrate the appropriate level of competence in library research as demanded by the discipline and as expected of a graduate student.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Course Schedule and Outline:

Class	Required Reading	Graded Assignments, Research Papers, Quizzes & Examinations
1	Chapter 01 & Chapter 04	
2	Chapter 01 & Chapter 04	Project Proposal Due
3	Chapter 02 & Chapter 03	Quiz 1
4	Chapter 05 & Chapter 06	
5	Chapter 07 & Chapter 08	Quiz 2
6		Midterm Exam
7	Chapter 9	Quiz 3
8	Chapter 10 & Chapter 11	
9	Chapter 12	Final Project Paper Due - Project Presentations
10	Chapter 13 & Chapter 14	
11	Chapter 15 & Chapter 16	
12		Comprehensive Final Examination

Course Requirement and Evaluation:

Evaluation will occur via quizzes, exams, homework assignments, presentation, Threaded discussions, exercises, case analyses

Late assignment gets zero points.

The deliverables will entail 1,000 possible points, broken down as follows:

450 = 3 x 150 points each	Three Quizzes
275 points	Final Project and Report
275 points	Final Exam
1000 points	Total Grade

The numerical score is then converted to a letter grade using the following scale:

90 – 100%	=	A
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of A (or F.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Final Project and Report

Term paper requires students to write a report for one of the following topics:

1. Why data structures are important for organizing needs.
2. When data can no longer be retrieved.
3. Types of data structures.
4. Development behind the most significant data structure.
5. How numbers and letters are used to composite data.

The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Classroom Policies: Attendance, Absence, Lateness, Incomplete policy

In accordance with the policies of the University, class attendance is required, and classes will start promptly at the scheduled time. If a student does not attend during [three] weeks of the [twelve] Class course, he/she will be referred to designated UNIVERSITY officials or may be subject for an automatic withdrawal from automatic from the course.

For an on ground courses students are expected to attend every class meeting unless if they have documented (egg Medical, family emergency leave....) reason for missing the class session. Students who have 3 unexcused, (undocumented absentees) will be referred to designated school officials.

A course grade of “incomplete” will be given only under very unusual circumstances, and only if the student has completed at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a 0 on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

Special Needs and Accommodations:

Please address any special problems or needs at the beginning of the quadmester with the instructor. If you are seeking accommodations based on a disability, you should provide a disability data sheet, which can be obtained from the student services office.

The Learning Environment:

Reagan National University is committed to providing a positive learning environment in which students of all ages and backgrounds can learn together in a setting that encourages the free exchange of ideas and information. To accomplish this goal, the members of the RNU Board have established the following expectations for learning.

- All backgrounds and cultures are respected.
- During class discussions, everyone feels welcome to participate and a free exchange of ideas takes place.
- All members of the class arrive on time and leave the class only on breaks or in case of emergency.
- Distractions are kept to a minimum. Cell phones and other electronic devices are turned off in class, labs, and library. Students remain seated throughout class and refrain from talking with classmates while another class member or the instructor has the floor.
- Each student turns in work that is his or her own.
- Consideration is always given to other classes that are taking place in adjoining classrooms.
- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

Reagan National University Library Services:

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Reagan National University

Syllabus

1. Administrative Information:

Course Number: CSC 331
Course Title: Computer Architecture
Credit Hours: 3
Prerequisite: CSC 122
Term: SU 2019
Class Time: Monday 14:00-17:45
Class Room: 1
Instructor: [REDACTED]
Office Hours: M TU 11:00 AM – 1:00 P. M.
Telephone:
E-Mail: [REDACTED]

Course Description:

This course presents the structure and behavior of the various functional modules of the computer with respect to hardware design and instruction set architecture. It also explores the interface between a computer's hardware and its software as well as provides system-level context for students interested in emerging technologies and digital circuits.

2. Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

3. Text:

Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors 2010 by Jean-Loup Baer. ISBN-13: 9780511669361.

4. Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Contribution to Class	10%
Homework	10%
Midterm	30%
Term Paper	20%

Final 30%

The course grades are assigned as:

90 – 100% = A-
80 – 89% = B
70 – 79% = C
60 – 69% = D
Below 60% = F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Course Schedule:

Class Topic

1. Fundamentals of Computer Design
Chapter 1 of the textbook.
2. Instruction Set Principles
Appendix A of the textbook.
3. Pipelining: Basic and Intermediate Concepts
Appendix C of the textbook.
4. Instruction-Level Parallelism and Its Exploitation
Chapter 3 of the textbook.
5. Review of Memory Hierarchy
Appendix B of the textbook.
6. Midterm Exam
7. Memory Hierarchy Design
Chapter 2 of the textbook.
8. Multiprocessors and Thread-Level Parallelism
Chapter 5 of the textbook.
9. Data-Level Parallelism: GPU Architectures
Chapter 4 of the textbook.
10. Storage Systems
Appendix D of the textbook.

11. Verification of Processor/Memory Architectures
Reading material will be provided.
12. Final Exam

5. Term Paper:

Term paper requires students to write a report for “Trends in Computer Architecture”. Since the introduction of the first computer, the search for computer architecture that is faster, smaller, and more efficient has been a constant goal of the computer industry. The first computers were large, heavy machines composed of thousands of vacuum tubes. The development of the transistor created the next evolution in computer architecture, the microchip. This is the architecture used in the current generation of computers. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

6. Classroom Policies:

You can get policies regarding to the University academic policies from the Student Handbook on the University web-site or in the University catalog.

7. Attendance, Absence, Lateness, Incomplete:

Students have six months from the registration to complete this course. If students need more time to finish the class, they may request for an incomplete. Faculty approval is required.

A course grade of “incomplete” will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

8. Course Outcome:

Upon successful completion of this course, students will be able to:

1. identify the development of modern computing and the latest trends in computing industry;
2. describe the interface between hardware and software;
3. explain how software instructs hardware to accomplish desired functions;
4. recognize computer architecture concepts and mechanisms related to the design of modern processors;
5. implement the instruction set for a specific computer requirements;
6. explore the memory hierarchy and the different I/O methods.

9. Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be

counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

9. Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a 0 on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

10. Special Needs and Accommodations:

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11. The Learning Environment:

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- All members of the class arrive on time and leave the class only on breaks or in case of emergency.
- Distractions are kept to a minimum. Cell phones and other electronic devices are turned off in class, labs, and library. Students remain seated throughout class and refrain from talking with classmates while another class member or the instructor has the floor.
- Each student turns in work that is his or her own.
- Consideration is always given to other classes that are taking place in adjoining classrooms.
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Reagan National University

Syllabus

1. Administrative Information:

Course Number: CSC 332
Course Title: Data Communication
Credit Hours: 3
Prerequisite: CSC 122
Term: FA 2018
Class Time: F 9:00-12:45
Class Room: 1
Instructor: [REDACTED]
Office Hours: M TU 11:00 AM – 1:00 P. M.
Telephone:
E-Mail: [REDACTED]

2. Catalog Description:

This course introduces the basic concepts, theories and components in data communications such as protocols, network equipment and the infrastructure. It covers the design and evaluation of computer networks using current trends in hardware and software. Topics include data transmission, signal encoding techniques, digital data communication techniques, optical fiber communications.

3. Teaching Procedures:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the **QUALITY** of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

4. Text:

Business Data Communications and Networking by Jerry FitzGerald. Published by John Wiley & Sons; 13th ed. 2017.

5. Course Requirements:

Due to the abundant amount of material that has to be covered in this class, in addition to the regular class periods, extra class might be necessary.

Examinations

There are two in-class exams and they are scheduled as:

Midterm: 6th class period

Final: last class

6. Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Midterm	40%
Term Paper	20%
Final	40%

No makeup exams!!!

The course grades are assigned as:

90 – 100%	=	A
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of A (or F.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

7. Course Requirements:

Week 1

- Data Communication Concepts

- o Networks and open system standards: the OSI reference model

- o Network topologies and the physical layer

- § Bus/Tree topology, ring topology, star topology

- o The future of data communications

Week 2

- Transmission Media and Transmission Technologies

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- o The electrical interface
- o Metallic media
- o Optical fiber media
- o Wireless media (line-of-sight media)
- o Baseband and broadband transmission
- o Transmission bandwidth (link capacity)
- o Codes
- o Analog and digital signals
- o Modulation and demodulation, modems and modem standards
- o Transmission impairments (distortion and noise limitations on system performance)

Week 3

- Data Transmission

- o Transmission modes
 - § Simplex, half-duplex, full-duplex communications
 - § Serial and parallel transmission
 - § Synchronous transmission
 - § Asynchronous transmission
- o Interface standards
- o Multiplexing of signals
- o Data compression

Week 4

- Protocol Concepts - Media Access Control

- o Protocol basics
- o MAC protocols (CSMA/CD and Token passing)

Week 5

- Data Security and Integrity

- o Error detection and correction
- o Encryption and decryption
- o Viruses, worms, and hacking

Week 6

Midterm Exam

Week 7

- **Local Area Networks**

- o LAN standards (IEEE standards 802 for LANs)
- o Interconnecting LANs
- o LAN Hardware (server platforms, backup devices, LAN adapters, printers, etc.)
- o LAN system software, LAN application software
- o LAN selection criteria

Week 8

- **Metropolitan Area Networks (MANs) and Wide Area Networks (WANs)**

- o Network routing
- o Public data networks
- o Circuit-switched data network
- o Packet-switched data network
- o Internet protocol
- o ISDN
- o Electronic mail

Week 9

- **Network Architecture**

- o Layered approach
- o Hierarchical approach

Week 10

- **Network Interconnections (Internetworking)**

- o LAN-to-LAN connections and LAN-to-Host connections
- o Repeaters, Bridges, Routers, and Gateways
- o Interconnection utilities

Week 11

- **Internet and Intranet**

Week 12

Final Exam

8. Term Paper:

Term paper requires students to write a report for “Packet switching”. Packet switching is a method of grouping data that is transmitted over a digital network into packets. Packets are made of a header and a payload. Data in the header are used by networking hardware to direct the packet to its destination where the payload is extracted and used by application software. Packet switching is the primary basis for data communications in computer networks worldwide. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

9. Classroom Policies:

Policies regarding to the University academic policies. You can get them from the Student Handbook on the University web-site or in the University catalog.

10. Attendance, Absence, Lateness, Incomplete:

In accordance with the policies of the Si Tanka University, class attendance is required, and classes will start promptly at the schedule time. If you are absent or excessively late, you will receive a score of zero for the participation of that class.

A course grade of “incomplete” will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

11. Course Outcome:

After course completion, the student should

- be able to explain knowledge within data communications
- be able to explain reference models for data communications, their layers and corresponding functions, services and protocols
- be able to describe the protocol techniques, local area networks and how Internet is built.

12. Internet Use Requirement:

I have included optional homework and project assignments that will require students to use the Internet in order to satisfactorily complete them. Additionally, my web site will maintain copies of supplemental labs and handouts that the student will find beneficial. The college maintains open labs that provide Internet access to all students.

13. Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a 0 on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

14. Special Needs and Accommodations:

Please address any special problems or needs at the beginning of the quadmester with the instructor. If you are seeking accommodations based on a disability, you should provide a disability data sheet, which can be obtained from the student services office.

15. The Learning Environment:

Reagan National University is committed to providing a positive learning environment in which students of all ages and backgrounds can learn together in a setting that encourages the free exchange of ideas and information. To accomplish this goal, the members of the RNU Board have established the following expectations for learning.

- All backgrounds and cultures are respected.
- During class discussions, everyone feels welcome to participate and a free exchange of ideas takes place.
- All members of the class arrive on time and leave the class only on breaks or in case of emergency.
- Distractions are kept to a minimum. Cell phones and other electronic devices are turned off in class, labs, and library. Students remain seated throughout class and refrain from talking with classmates while another class member or the instructor has the floor.
- Each student turns in work that is his or her own.
- Consideration is always given to other classes that are taking place in adjoining classrooms.
- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

Reagan National University Library Services:

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faculty created resources. The Library Research Portal (library@rnu.edu) provides access to multiple services and authoritative resources for academic research including books, articles, texts, visual media, and teaching resources. Appropriate sources include scholarly and peer-reviewed journal articles, scholarly books, and well-respected news magazines and newspapers. The Library offers a large number of appropriate sources and each student is required to attend an online Library orientation. Assistance is available to help students select and locate appropriate sources when RNU is open. The online library is available to students 24 hours 7 days a week. All students can connect to the online library through the computers and laptops available at home and on campus. Each student must use their own pass code to access the library.

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Reagan National University

Syllabus

1. Administrative Information:

Course Number:	CSC 345
Course Title:	Computer Graphics
Credit Hours:	3
Prerequisite:	CSC 122
Term:	FA 2018
Class Time:	W 9:00 – 12:45
Class Room:	1
Instructor:	██████████
Office Hours:	M TU 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	██████████

Course Description

This course provides students the basic concepts necessary for successful use of the computer as a graphic tool. It covers topics such as survey of the applications of computer graphics, video games, the renderers behind Hollywood's special effects, graphics art and design, 2-dimensional and 3-dimensional display techniques and an examination of computer graphics technologies.

Teaching Procedures

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the "I feel" syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Text:

Computer Graphics Principles and Practice, John F. Van Dam Hughes.
ISBN-: 9780321399526

Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Contribution to Class	10%
Homework	10%
Midterm	30%
Term Paper	20%
Final	30%

No makeup exams!!!

The course grades are assigned as:

90 – 100%	=	A -
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”). By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Course Schedule:

Week	Topic
1	Introduction, images, rasterization, and math preliminaries
2	Ray tracing preliminaries; Geometric objects
3	2D/3D transform; OpenGL programming
4	Lighting, shading, and viewing
5	Vertex processing
6	Midterm Exam
7	Review and midterm exam
8	Visualization

- 9 Ray casting and ray tracing
- 10 Textures and color
- 11 Image-based rendering
- 12 Final Exam

Classroom Policies:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments, homework and examinations. You can get policies regarding to the University academic policies from the Student Handbook on the University web-site or in the University catalog.

Attendance, Absence, Lateness, Incomplete:

A course grade of “incomplete” will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Term Paper:

Term paper requires students to write a report for “Motion Graphics And Non Moving Graphics”. Motion graphics offers new narrative possibilities compared to traditional print graphics - but motion graphics may also introduce limitations easily overcome by non-moving graphics. Take at least two examples of each kind of graphic form and compare the communicative strengths and weaknesses of each. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Course Outcome:

By the end of this course, students will be able to:

1. understanding of fundamental algorithms and techniques in computer graphics;
2. understand 2D and 3D viewings and transformations;
3. describe how graphics display devices work and what graphics;
4. explain the graphics modeling process and create polygonal meshes models;
5. create virtual scenes, transform objects, and work with a camera.

Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

Academic Honesty:

It is assumed that all students have familiarized themselves with the university's policy on and definition of academic dishonesty. All work should be the student's own - academic honesty is expected of everyone. Those who do not adhere to university and professional expectations with respect to this will be dealt with in accordance with college policy. In general – students will receive a “0” on their work if they either submit work that isn't their own (including cutting and pasting content from the Internet without proper citation) or allow other students to use their work. A second instance results in failure of the course.

Special Needs and Accommodations:

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The Learning Environment:

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- Each student turns in work that is his or her own.
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- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

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Reagan National University

Syllabus

1. Administrative Information:

Course Number: CSC 365
Course Title: Programming Hand Held Devices
Credit Hours: 3
Prerequisite: CSC 122
Term: WI 2019
Class Time: W 9:00 – 12:45
Class Room: 1
Instructor: [REDACTED]
Office Hours: M TU 11:00 AM – 1:00 P. M.
Telephone:
E-Mail: [REDACTED]

Course Description

This course covers Android/iOS programming. The major topics include: GUIs, layouts, menus, resource files, events, touch/gesture processing, accelerometer and motion event handling, images, video, audio, graphics, animation, maps, geo-location, threading, web services, timers, supporting various screen sizes/resolutions, and more. We will write Apps for Android phones/watches, iPhone, and Apple Watch.

Teaching Procedures

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the **QUALITY** of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Text:

There is no textbook for this course, but I strongly encourage students to explore the wide range of freely-available Android-related and ISO-related resources.

- Keep up with changes and improvements in the Android ecosystem by reading the Android Developer's Blog.
- Watch tutorials and other presentations from the Google I/O conference.

Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Contribution to Class	10%
Homework	10%
Midterm	30%
Final	50%

No makeup exams!!!

The course grades are assigned as:

90 – 100%	=	A-
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Course Schedule:

Week	Topic
1	Intro to Interface Builder (IB) Objective C Data types, Intro to Objective C Classes IBOutlets
2	Setters/Getters Arrays and Collections
3	UIControlEvents/UIEvents and Event Handlers Application Lifecycle/UILabel
4	UITextView/UITextFields

- Memory Management/Properties
- 5 (Programmatically implementing interfaces)
UIScrollViewable Views and Dynamic Interfaces
- 6 Midterm Exam
- 7 Intro to File Processing/Twitter Integration
Intro to UIView and Multi-Touch Events
Intro to CoreGraphics
- 8 CoreGraphics continued/Sounds (AVAudioPlayer)
WebView/MapView
- 9 MapView Contd/SQLite
TableView/File Processing II
- 10 TabViewController/VideoPlayer
- 11 Core Data
SplitView applicatioin for Ipad
- 12 Final Exam

Term Paper:

Term paper requires students to write a report for “Handheld devices for applications using dynamic multimedia data”. Growing demand for ubiquitous and pervasive computing has triggered a sharp rise in handheld device usage. At the same time, dynamic multimedia data has become accepted as core material which many important applications depend on, despite intensive costs in computation and resources. This paper investigates the suitability and constraints of using handheld devices for such applications. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Classroom Policies:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments, homework and examinations. You can get policies regarding to the University academic policies from the Student Handbook on the University web-site or in the University catalog.

Attendance, Absence, Lateness, Incomplete:

A course grade of “incomplete” will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Course Outcome:

Students should be able to perform the following upon completion of this course:

- Develop a wide range of completely functional mobile applications (8 - 10 apps).
- Test the mobile application using the vendor supplied simulator.
- Test the mobile application on the actual device (ipod, iphone, ipad)
- Develop splitview applications
- Develop touch-based applications
- Develop a game application with Quartz library
- Develop a web application camera.

Moodle Forum:

We will use the Moodle Forum to extend the class discussion. I will actively participate in all ongoing discussion threads. This is a good place to engage your classmates in discussions of course topics. To encourage all to participate, contributions to the bulletin boards will be counted towards your class participation points. Other aspects of "class participation" will be discussed on the first day of class.

Academic Honesty:

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Special Needs and Accommodations:

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disability data sheet, which can be obtained from the student services office.

The Learning Environment:

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Reagan National University

Syllabus

1. Administrative Information:

Course Number:	CSC 368
Course Title:	Web Programming
Credit Hours:	3
Prerequisite:	CSC 122
Term:	SP 2019
Class Time:	W 9:00 – 12:45
Class Room:	1
Instructor:	██████████
Office Hours:	M TU 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	████████████████████

Course Description

This course presents and applies the web programming languages (HTML, DHTML, Javascript, Coldfusion), tools, and techniques used to develop professional web sites. The course moves step-by-step through the processes involved in planning, designing, launching, and maintaining successful web sites, with an emphasis on teamwork.

Teaching Procedures

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Text:

Gerardus Blokdyk, *Web Application Design A Complete Guide - 2019 Edition*, ISBN-13: 9780655843061.

Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Homework 20%
Final Project 15%

Midterm	30%
Final	35%

No makeup exams!!!

The course grades are assigned as:

90 – 100%	=	A-
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

Note: Scores and grades will not be “curved.” Therefore, any number of students in this course can earn a score of 100 (or 0) on quizzes or exams; and any number of students can earn a grade of “A” (or “F”.) By using the preceding factor, a student should constantly be aware of his/her potential final grade in the course. Students are welcome to discuss with the professor regarding to his/her progress or any aspects of the course.

Computer laboratory

Computer laboratory assignments are designed to supplement and reinforce skills acquired in the particular course which lists this course as a co requisite. In this course, there is an in-class lab component attended by the faculty. Usually, about 30% of class time is dedicated to lab. Faculty will be around when the students are doing their lab assignments.

Course Schedule:

Week	Topics	Reading	Assignments
1	Web Fundamentals, Programming Languages for the Web	Chapters 1 and 2	
2	HTML Basics, the working environment The PHP language	Chapters 3 and 4 Chapter 5 and 6	File browser v1.0, indexer v1.0
3	More on the PHP language	Chapter 7	
4	Using HTML with PHP, forms, sessions, cookies, etc. Using CSS and templates. Intro to databases	Chapter 9 Chapter 10 and 11	File Browser v2.0, indexer v2.0
5	Database manipulation in PHP	Chapter 12 and 13	Indexer v3.0
6	Midterm Exam		
7	Basics of JavaScript	Chapter 14	Indexer 4.0+Searcher; final project proposal due

8	Programming the browser and forms with JavaScript Manipulating windows and frames with JavaScript	Chapter 15 and 16	
9	Using dates, timers, string manipulation and regular expressions	Chapter 17	
10	DHTML AJAX basics	Chapter 18	
11	Security pitfalls and basic solutions (SQL injections, HTML/JS injections, X-site scripting, DoS, DDoS, File upload vulnerabilities, Password encryption, Password recovery flaws)	Chapters 8 and 19	Final project CEO presentation
12	Final Exam		

Term Paper:

Term paper requires students to write a report for “Web Site Development Checkpoints: Website”. Websites provide organizations with a valuable tool for the presenting a face to the entire world few successful businesses can survive today with having a professional-looking and functional website (Lucas). This paper is to analyze the resolve of a company’s web site whether or not it achieve the purpose it intend. Web-Site development checkpoints is the process of collecting and linking information about a specific web page. The paper is expected to be between 8 and 10 pages in length, including front and back matter. Sections of the paper will be developed throughout the course.

Classroom Policies:

Teaching procedures for this course will include professional lectures, class discussions, reading assignments, homework and examinations. You can get policies regarding to the University academic policies from the Student Handbook on the University web-site or in the University catalog.

Attendance, Absence, Lateness, Incomplete:

A course grade of “incomplete” will be given under very unusual circumstances, and only if the student has complete at least 75% of the assigned work by the last day of class and only when an incomplete contract is signed and approved.

Course Outcome:

At the end of this course the successful student will be able to:

- apply a structured approach to identifying needs, interests, and functionality of a website.
- design dynamic websites that meet specified needs and interests.
- write well-structured, easily maintained, standards-compliant, accessible HTML code.
- write well-structured, easily maintained, standards-compliant CSS code to present HTML pages in different ways.
- use JavaScript to add dynamic content to pages.
- critique JavaScript code written by others, identifying examples of both good and bad practice.

Moodle Forum:

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Academic Honesty:

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- At the end of a class, the members of the class and the instructor leave the classroom in good condition so that the next class can begin without disruption.

Reagan National University Library Services:

RNU's online collection contains over 60,000 volumes comprised of books, journals, videos, and faculty created resources. The Library Research Portal (library@rnu.edu) provides access to multiple services and authoritative resources for academic research including books, articles, texts, visual media, and teaching resources. Appropriate sources include scholarly and peer-reviewed journal articles, scholarly books, and well-respected news magazines and newspapers. The Library offers a large number of appropriate sources and each student is required to attend an online Library orientation. Assistance is available to help students select and locate appropriate sources when RNU is open. The online library is available to students 24 hours 7 days a week. All students can connect to the online library through the computers and laptops available at home and on campus. Each student must use their own pass code to access the library.

As an RNU student, you are required to use the RNU online library, as one source, to assist you in completing a required research paper or project.



Reagan National University

Syllabus

1. Administrative Information:

Course Number:	CSC 417
Course Title:	Object-Oriented Programming
Credit Hours:	3
Prerequisite:	CSC 122
Term:	SP 2019
Class Time:	W 9:00 – 12:45
Class Room:	1
Instructor:	██████████
Office Hours:	M TU 11:00 AM – 1:00 P. M.
Telephone:	
E-Mail:	████████████████████

Course Description

Advanced use of an object-oriented programming language in the implementation of object-oriented systems. The language is studied in depth to see how advanced concepts are realized in the language, and is used to produce example systems. Emphasis is placed on the most recent advanced features.

Teaching Procedures

Teaching procedures for this course will include professional lectures, class discussions, reading assignments and examinations.

Participation in Class Discussion

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the QUALITY of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the “I feel” syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

Text:

Intro to Java Programming, Comprehensive Version, 11th Edition by Y. Daniel Liang
Published by Prentice Hall Copyright © 2017, ISBN: 978-0134611037

Course Requirements:

Letter grades will be assigned to each student based on a mathematical calculation of the points earned on the examinations. The weights of the exams are:

Homework Assignments	20%
Term Paper	20%