Important Notice to Student: This study guide complies with CS department guidelines for end of semester review and is subject to being graded. To satisfy the graded requirement, each student must present written response to the Graded Portion of this Study Guide and at least two projects tied to objectives of which Demonstrate/Mastery is required. Your efforts in studying and practicing the applications as stated in the unit objectives will also help to prepare you for the written final exam at the end of the semester. If you don’t have MS Office, sign up to Office.com or LibreOffice.com. It’s free online.

Note: Turn-in your written responses for GRADE by January 5, 2017.

COURSE OVERVIEW

Description. CS11A - The Information Technology Applications course is an introduction to the use of information and communication technologies in large organizations, especially corporate organizations, government, and other institutions with an emphasis on office productivity suites including database and enterprise systems. It is intended for students without formal background in information technology or information systems, and aims to provide a conceptual foundation for professional practice in information technologies, services and management. This course will prepare the student for advance courses in Information Technology in college, post-secondary technical school, or a career immediately after graduation. Offered only in the Fall Semester. CS11A is a prerequisite for CS21A/B & CS32.

Instructor. Mr. H. Salas & Mrs. R. Crook, Career and Technical Educators

UNIT 1: Essential Computer Concepts

DESCRIPTION: Students are introduced to the Windows Operating System, the graphical user interface for navigating within windows and the network, and logon/logoff procedures. In addition computer usage policies, security, and regulations that go along with computer ethics are also covered. Discusses ion on how computer systems work and why it performs as it does. The students do exploration of the internal parts of a modern computer and the basic input and output systems.

OBJECTIVES:
1. Demonstrate mastery of the graphical user interface (windows/folders/files environment).
2. Identify appropriate usage of the computer.
3. Explain how computers work.
4. Identify the basic input and output systems.
### UNIT 2: Keyboarding Skills for Computers

**DESCRIPTION:** Building Keyboarding Skills for Computers is an essential skill required to key faster and more accurately every time you use a computer. The “hunt and peck” system is not fun and besides it makes for long hours of sitting, hunting, pecking, hunched over just to create a report for class or the workplace. Keyboarding Skills for Computers consist of ten skill builder exercises to get your best WAM and EAM. A Timed Writing Progress Chart provides immediate feedback on your progress and a Techniques Checklist allows you to spot the areas needing improvement. With the right attitude, the right position, and keyboarding skills you will improve your touch system and increase your enjoyment while using the computer.

**OBJECTIVES:**
1. Demonstrate the right attitude, ready position, and keyboarding skills to key faster and more accurately.
2. Build keyboarding skills beyond minimum 35wpm and 95% accuracy.

### UNIT 3: Introduction to Word Processing

**DESCRIPTION:** Word Processors are an application tool in various office suites that can help you to create professional looking documents such as letters and reports. Word Processing provides the ability to create documents for school, the workplace, personal writing and many other activities that required text, tables, diagrams, and images. Also covered is the MLA format required of academic disciplines for producing reports and research papers.

**OBJECTIVES:**
1. Demonstrate ability to use Word Processors to create, format and revise word processing documents such as simple reports with tables, newsletters with pictures, and even documents that can be published to the Web.
2. In addition, the student must be able to create and revise academic reports using the MLA format.

### UNIT 4: Introduction to Presentation Programs

**DESCRIPTION:** Presentation software can help you to create professional presentations to inform, educate, persuade, or market a product or service to an audience. In Multimedia Presentation you can create slides, outlines, speaker’s notes, and handouts for your audience. A presentation can include text, graphics, charts, tables, sound and video clips. Multimedia presentations accompanied often by a speaker in their own voice, are used in business to inform, persuade, instruct, and even entertain a specific audience.

**OBJECTIVES:**
Demonstrate ability to use Presentation software to create and deliver to an audience a successful multimedia presentation within “Best” practices guidelines.

### UNIT 5: Spreadsheets, Charts & Graphs

**DESCRIPTION:** Spreadsheets are reports that are used for business and financial applications that analyze data in a table format. Any data that needs analysis using formulas that can be arranged in
A table should be in a spreadsheet. The same data can be represented with charts or graphs once the data is collected and arranged in a spreadsheet.

**OBJECTIVES:**
1. Demonstrate ability to use Spreadsheets & Charts to create a workbook to solve problems that involve complex and repetitious calculations.
2. In addition, the student must be able to create an appropriate graph or chart to represent the data collection, and troubleshoot problems in the spreadsheet and formula design.

**UNIT 6: 3D Architecture**

**DESCRIPTION:** The 3D Architecture course provides a student with the practical experience and necessary skills to create a basic publication, incorporating features for greater effectiveness and appeal, using 3D Architecture. Students will create a multi-pages, import and format text and graphics, and create the layout per requirements.

**OBJECTIVES:**
1. Comprehend the design & development environment.
2. Translate theory into practice when creating 3D Architecture documents.
3. Demonstrate proficiency in using 3D Architecture software.

**UNIT 7: Introduction to Database Development**

**DESCRIPTION:** Through the study of the appropriate use of a database management system (DBMS), and database application in general, students will learn to make informed decisions about DBMS technologies and their applications. Database development projects will be used to actually apply the techniques covered. Critical Thinking Activities will give the student an opportunity to apply creative analysis and use the help system to solve problems. Students will study problem-solving strategies, synthesize knowledge, create a solution and evaluate the results.

**OBJECTIVES:**
Demonstrate ability to use DBMS to design a computerized database management system that would store data, retrieve data via queries, analyze and troubleshoot problems in the database design, and print reports that reflect information collected in the database.

**Graded Portion of this Study Guide**

**General Instructions:** Complete and turn-in answers no later than Tuesday, Jan. 5, 2016. This is a graded assignment for which you will receive a Class Assignment grade. Not completing this can result in a zero (0) for the assignment and a lower semester grade.

**Instructions:** Demonstrate mastery of computer hardware & technology acronyms by:
- Recognize and label external physical computer components.
- Recognize and label upgradeable components that connect to a PC motherboard.
- Recognize hardware acronyms and state what they stand for.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS</td>
<td>BIOS</td>
</tr>
<tr>
<td>CD</td>
<td>CD</td>
</tr>
<tr>
<td>CDR</td>
<td>CDR</td>
</tr>
<tr>
<td>CPU</td>
<td>CPU</td>
</tr>
<tr>
<td>DNS</td>
<td>DNS</td>
</tr>
<tr>
<td>DOS</td>
<td>DOS</td>
</tr>
<tr>
<td>DSL</td>
<td>DSL</td>
</tr>
<tr>
<td>DVD</td>
<td>DVD</td>
</tr>
<tr>
<td>FTP</td>
<td>FTP</td>
</tr>
<tr>
<td>GPU</td>
<td>GPU</td>
</tr>
<tr>
<td>I/O</td>
<td>I/O</td>
</tr>
<tr>
<td>IDE</td>
<td>IDE</td>
</tr>
<tr>
<td>IT</td>
<td>IT</td>
</tr>
<tr>
<td>LAN</td>
<td>LAN</td>
</tr>
<tr>
<td>LED</td>
<td>LED</td>
</tr>
<tr>
<td>NIC</td>
<td>NIC</td>
</tr>
<tr>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>PCI</td>
<td>PCI</td>
</tr>
</tbody>
</table>
Instructions: Demonstrate mastery of Microsoft Word, Microsoft PowerPoint, & Microsoft Excel by answering the following questions. Database concepts questions are included in the exam.

1. You place the insertion point in the middle of a paragraph and start typing. But the new text deletes existing text. What’s the problem and how do you fix it?
2. Once you've deleted text, you can't get it back, unless you use this keyboarding shortcut:
3. As you type a paragraph, press ENTER to move from one line to the next. Why?
4. The best way to create a heading in a document is to:
5. You create a numbered list as you type by typing 1, adding your text, and pressing ENTER. What does this create?
6. What's a good reason to use a header or footer in your document?
7. How do you open the Header and Footer toolbar?
8. In order to save an existing document with a different name you need to:
9. Which keyboard shortcut bolds selected text?
10. What would you see while spell checking the phrase "My father was write"?
11. Suddenly Word does not display your favorite toolbar. What has happened?
12. Which elements of a Word document can be displayed in color?
13. Why the document you created at home displays with a different font at school?
14. Which keyboard shortcut centers selected text?
15. How many different documents can you have open at one time?
16. How many margins are on a page?
17. A document prints in two orientations, portrait and __________.
18. What is the purpose of page preview mode?
19. How can you highlight text without using the mouse?
20. This is a Bar that contains the File, Edit, History, Bookmark, Tools, and Help.
21. A fast way to add up this column of numbers is to click in the cell below the numbers and then:
22. Say that you want to paste a formula result — but not the underlying formula — to another cell. You would copy the cell with the formula, then place the insertion point in the cell you want to copy to. What next?
23. In a spreadsheet, how do you change column width to fit the contents?
24. There are three worksheets with every new workbook. You can change that automatic number if you want to.
25. What does ###### means in a spreadsheet?
26. To add a new row, click a cell in the row immediately above where you want the new row.
27. Which key do you press to group two or more nonadjacent worksheets?
28. To copy an entire worksheet and all its data, you should click the worksheet tab of the sheet that you want to copy, hold down SHIFT, and then drag the selected sheet along the row of sheet tabs.
29. A user wishes to remove a spreadsheet from a workbook. Which is the correct sequence of events that will do this?
30. Which formula can add the all the numeric values in a range of cells, ignoring those which are not numeric, and place the result in a different cell?
31. Is it possible to insert an image from a file into an Excel spreadsheet?
32. Can an Excel spreadsheet be used as the "data source" for a Word Mail Merge?
33. On an Excel spreadsheet the active cell is indicated by ____.
34. A Formula and a function are the same thing.

35. In order to multiply items in Excel you would use:
36. The formula = ((A2+B5)*5% is valid
37. If cells: A1=90 A2=85 A3=80 A4=75 A5=75 What will be your formula if you are going to get the average?
38. If cells: A1=90 A2=85 A3=80 A4=75 A5=75 What will be your formula if you are going to get the total?
39. Get the remarks in cell E10 that valued 75 which noted, if the remarks will be higher than 74, the remarks will be "PASSED" or else "FAILED".
41. To print a presentation using shortcut keys, press ____.
42. To maintain balance and simplicity in your presentation, designers recommend using a maximum of ____ fonts and two font styles or effects.
43. When you drag the scroll box, the ____ displays the number and title of the slide you are about to display.
44. A ____ ends all slide shows unless the option setting is deselected.
45. This button allows you to create a new presentation, Open an existing presentation, save and save as, print, send, or close
46. A(n) ____ is the basic unit of a PowerPoint presentation.
47. A symbol such as a heavy dot or other character that precedes text in a presentation is called a(n) ____.
48. It is a collection of electronic slides that can have text, pictures, graphics, tables, sound and video. This collection can run automatically or can be controlled by a presenter.
49. To start PowerPoint, click the Start button on the Windows taskbar, point to Programs, and then select ____.
50. To start a slide show using the keyboard, press ____.
51. A separate window within the application that provides a list of commonly used commands is called a ____.
52. The ____ rule states that each slide should have ample space to rest the eyes.
53. To access the PowerPoint Help system using the keyboard, press ____.
54. It is a collection of data and information that is to be delivered to a specific audience.
55. These are design templates that can be applied to an entire presentation that allows for consistency throughout the presentation.
56. Underline, shadow, emboss, superscript, and subscript are all examples of text ____.
57. These are effects that are in place when you switch from one slide to the next.
58. The best way to get a slide show to stop is to:
59. A slide that consists of more than one level of bulleted text is called a ____ bulleted list slide.
60. The major features of a DBMS are: ________________________________
61. Define database Terms: DBA, DBMS, BD, Table, fields, records, query, data types, data object
GETTING HELP
There are many resources, which provide opportunity beyond the classroom to improve learning.

1. On-line resources that provide free tutorials, in an interactive format to reinforce learning: http://www.gcflearnfree.org/office2013
2. Study groups: Get together with other class members and form a study group. Meet regularly to study.
3. OT Office hours: 8:00am to 8:50am Take advantage of OT office hours to get help.
4. Course materials, visit the CS website, Computer Science with Major Salas, on the RMA Intranet.

Major Hector L. Salas, MBA
Computer Science Department, Chair
Business and Computer Science Career and Technical Educator

Last Revised: 12/8/2016