

# Component I: Core

## Module E: Computers

### Topic 3: Introduction to Spreadsheets

#### Statement of Purpose

To prepare the learner with basic knowledge and skills necessary to use a spreadsheet application.

#### Student Learning Outcomes

Upon completion of this topic, the learner will be able to:

1. Spell and define key terms.
2. Prepare and format a spreadsheet.(Note that a spreadsheet is also called a worksheet and multiple worksheets are a workbook)
3. Update and format a spreadsheet.
4. Move data within and between spreadsheets.
5. Insert formulas in a spreadsheet.
6. Create charts using data from a spreadsheet.

#### Terminology

- |              |                          |
|--------------|--------------------------|
| 1. Alignment | 12. Functions            |
| 2. AutoFill  | 13. Gridlines            |
| 3. AutoSum   | 14. Insert               |
| 4. Borders   | 15. Mixed cell reference |
| 5. Cell      | 16. Rows                 |
| 6. Charts    | 17. Spreadsheet          |
| 7. Columns   | 18. Templates            |
| 8. Delete    | 19. Windows              |
| 9. Filename  | 20. Workbook             |
| 10. Format   | 21. Worksheet            |
| 11. Formulas |                          |

#### References

1. Hogan, L., (2013). Practical Computing, (3<sup>rd</sup> Ed.) Upper Saddle River, NJ: Pearson/Prentice Hall.
2. Blesi, M., Wise, B.A., & Kelley-Arney, C, (2012) Medical Assisting Administrative and Clinical Competencies (7<sup>th</sup> Ed.) Clifton Park, NY: Delmar, Cengage Learning.
3. Proctor, D. B., & Young-Adams, A. P. (2011). Kinn's The Medical Assistant: An Applied Learning Approach (11<sup>th</sup> Ed.). Philadelphia, PA: Saunders Elsevier.
4. D. Beskeen, (2013). [Microsoft® Office 2013: Illustrated Introductory, First Course, \(1st Ed.\)](#) Cengage Learning.

Content Outline/Theory Objectives	Suggested Learning Activities
<p><b>Objective 1</b>  <b>Spell and define key terms.</b></p> <ul style="list-style-type: none"> <li>A. Review the terms listed in the terminology section.</li> <li>B. Spell the listed terms accurately.</li> <li>C. Pronounce the terms correctly.</li> <li>D. Use the terms in their proper context.</li> </ul>	<ul style="list-style-type: none"> <li>A. Games: word searches, crossword puzzles, Family Feud, Jeopardy, bingo, spelling bee, hangman and concentration.</li> <li>B. Administer vocabulary pre-test and post-test.</li> <li>C. Discuss learning gaps and plan for applying vocabulary.</li> </ul>
<p><b>Objective 2</b>  <b>Prepare and format a spreadsheet. (Note that a spreadsheet is also called a worksheet and multiple worksheets are a workbook)</b></p> <ul style="list-style-type: none"> <li>A. Create a spreadsheet <ul style="list-style-type: none"> <li>1. Enter data in a cell.</li> <li>2. Edit data in a cell.</li> </ul> </li> <li>B. Save a spreadsheet.</li> <li>C. Open a spreadsheet.</li> <li>D. Print a spreadsheet.</li> <li>E. Close a spreadsheet.</li> <li>F. Apply character formatting with the formatting tool bar <ul style="list-style-type: none"> <li>1. Bold.</li> <li>2. Italic.</li> <li>3. Underline.</li> <li>4. Font size.</li> <li>5. Font color.</li> </ul> </li> <li>G. Change column width and height <ul style="list-style-type: none"> <li>1. Change column width.</li> <li>2. Change column height.</li> </ul> </li> <li>H. Format data in cells <ul style="list-style-type: none"> <li>1. Format numbers.</li> <li>2. Change data alignment in cells.</li> </ul> </li> <li>I. Format cells <ul style="list-style-type: none"> <li>1. Add borders to cells.</li> <li>2. Add shading and a pattern to cells.</li> <li>3. Format with Auto Format.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Use computer assisted learning/workbook activities.</li> </ul>
<p><b>Objective 3</b>  <b>Update and format a spreadsheet.</b></p> <ul style="list-style-type: none"> <li>A. Insert or delete rows and columns <ul style="list-style-type: none"> <li>1. Insert rows.</li> <li>2. Insert columns.</li> <li>3. Delete rows, columns or cells.</li> </ul> </li> <li>B. Format a spreadsheet page <ul style="list-style-type: none"> <li>1. Control the page layout.</li> <li>2. Change spreadsheet margins.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Use computer assisted learning/workbook activities.</li> <li>D. Schedule time in a computer lab for students to practice.</li> <li>E. Have the students form small</li> </ul>

<ol style="list-style-type: none"> <li>3. Center a spreadsheet horizontally and vertically.</li> <li>4. Insert page breaks.</li> <li>5. Print column and row titles on multiple pages.</li> <li>6. Print gridlines and row and column headings.</li> </ol>	<p>groups consisting of two or three students; ask them to create a scenario where a spreadsheet would assist in data management. Ask them to create a basic spreadsheet related to the scenario that can be used in later lessons. Save to CD or flash drive.</p> <p>F. Ask each group to present their results for group discussions and spreadsheet application.</p>
<p><b>Objective 4</b>  <b>Move data within and between spreadsheets.</b></p> <ol style="list-style-type: none"> <li>A. Move, copy and paste cells       <ol style="list-style-type: none"> <li>1. Move selected cells.</li> <li>2. Copy selected cells.</li> </ol> </li> <li>B. Create a workbook with multiple spreadsheets       <ol style="list-style-type: none"> <li>1. Print a workbook containing several spreadsheets.</li> <li>2. Delete a spreadsheet.</li> <li>3. Split a spreadsheet into windows and freeze panes.</li> </ol> </li> <li>C. Work with Windows       <ol style="list-style-type: none"> <li>1. Open multiple workbooks.</li> <li>2. Close multiple workbooks.</li> <li>3. Arrange workbooks.</li> </ol> </li> <li>D. Use excel templates       <ol style="list-style-type: none"> <li>1. Enter data in a template.</li> <li>2. Customize a template.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Use computer assisted learning/ workbook activities.</li> <li>D. Schedule time in a computer lab for students to practice.</li> <li>E. Ask students to add data in at least two workbooks to the spreadsheet created in the last lesson.</li> <li>F. Visit an office setting that uses a computer for administrative tasks.</li> <li>G. Have the students practice obtaining information using a spreadsheet and performing other administrative tasks.</li> </ol>
<p><b>Objective 5</b>  <b>Insert formulas in a spreadsheet.</b></p> <ol style="list-style-type: none"> <li>A. Use the AutoSum button.</li> <li>B. Write formulas with mathematical operators       <ol style="list-style-type: none"> <li>1. Copy a formula.</li> <li>2. Copy formulas with AutoFill.</li> </ol> </li> <li>C. Insert a formula with the function wizard or assistant       <ol style="list-style-type: none"> <li>1. Find averages.</li> <li>2. Find maximum and minimum values.</li> <li>3. Find depreciation values.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Use computer assisted learning/workbook activities.</li> <li>D. Schedule time in a computer lab for students to practice.</li> <li>E. Have students insert formulas into spreadsheets.</li> <li>F. Engage the students in a discussion about the advantages and disadvantages of various computer accounting systems.</li> </ol>

**Objective 6****Create charts using data from a spreadsheet.**

- A. Create a chart in excel with data in a spreadsheet
  - 1. Size the chart.
  - 2. Move the chart.
- B. Change the chart type.
- C. Change the data in the cells.
- D. Add and delete elements on the chart
  - 1. Add titles.
  - 2. Add data labels.
  - 3. Delete and remove chart elements.
  - 4. Add gridlines.

- A. Lecture/Discussion
- B. Assigned Readings
- C. Use computer assisted learning/workbook activities.
- D. Schedule time in a computer lab for students to practice.
- E. Have the students create charting examples using bar, pie and column graphs.
- F. Have the students form small groups consisting of two or three students. Instruct the students to select a problem and develop a program to solve the problem.
- G. Students should be encouraged to develop graphics or charts depicting their results.