

CBA Information Technology References

This document contains ideas for content to cover in CBA courses for student learning objectives (SLOs) in information technology use based on the College's assessment rubric. It addresses the major dimensions of the rubric: word processing, spreadsheets and statistical analyses, presentation in PowerPoint and Prezi, and use of databases.

The ideas here are drawn from educational services such as Coursera, edX, TeachUcomp, and Lumen, which offer online courses and certifications for various specializations. Coursera offers each course approximately once a month. Some edX courses provide a certification for a fee, some courses are free, and others can even be used to earn university credit. Lumen offers learning materials at low costs. TeachUcomp focuses on software instruction.

Some components of these courses are relevant for the criteria used in the CBA assessment rubrics. Miscellaneous online resources and/or videos are also provided that discuss the more specific criteria.

Not all criteria of the assessment rubric may be covered by the resources presented here. This document may serve as a starting point for developing instructional content based on what other educational services tend to offer.

Word Processing

1. <https://courses.lumenlearning.com/wmopen-compapp>
Lumen Learning service offers a comprehensive 10-module course on Computer Applications for Managers. In Modules 1 and 2, users can learn about basic computer operations. Information relevant to the Word Processing dimension begin at Module 3. Each lesson within the modules contains a brief reading, practice questions, and a short quiz (3 items or so). Students can go through each module in less than an hour and can learn Microsoft Office basics. (This course returns again in the next section.)

Modules 3-5 teach Microsoft Word operations, including but not limited to:

- o Fonts
- o Alignment, justification, and indentation
- o Spell check and dictionaries
- o Columns
- o Headers and footers
- o Text boxes
- o Creating tables
- o Adding images
- o Hyperlinks
- o Watermarks

2. <https://www.techrepublic.com/blog/10-things/10-plus-advanced-formatting-tips-for-word-users/>

TechRepublic is a community that “delivers a unique blend of original content by IT professionals, peer-to-peer advice from the largest community of IT leaders on the Web, and a vast library of professional resources from the leading vendors in the IT industry” (TechRepublic, “About Us”).

The link above provides more advanced step-by-step tips for using Word functions. The functions range from pasting text from outside sources to keeping two words together on one line, to eliminating space between paragraphs, etc. Screenshots from older Word versions are provided on the webpage for ease of navigation.

3. <http://guides.lib.umich.edu/c.php?g=283073&p=1886011>

The University of Michigan library explains how to use the Review feature in Word. This usually applies when multiple users are working on a document. This feature allows to track changes made to the document and comments left by each user, and each member's contributions appear in a different color. Here students can also learn how to consolidate edits from multiple users into the final version, and how to resolve comments and accept suggested edits. Screenshots are provided for ease of navigation.

4. <https://support.office.com/en-us/article/add-a-citation-and-create-a-bibliography-17686589-4824-4940-9c69-342c289fa2a5>

Microsoft Office webpage that teaches how to use of the References feature in Word. If this feature is turned off, users may have to enable it by right-clicking anywhere on the tabs at the top and choosing '*Customize Ribbon*'.

Spreadsheets/Statistical Analyses

1. <https://courses.lumenlearning.com/wmopen-compapp/>

This earlier resource from Word Processing covers use of Microsoft Excel in Modules 6 and 7. The link has a detailed course syllabus. The topics include:

- Table and cell styles
- Flash fill
- Functions
- Sorting and filtering data
- Chart styles
- Conditional formatting

- 2a. <https://support.office.com/en-us/article/design-the-layout-and-format-of-a-pivottable-a9600265-95bf-4900-868e-641133c05a80?ui=en-US&rs=en-US&ad=US>

- 2b. <https://support.office.com/en-us/article/create-a-pivotchart-c1b1e057-6990-4c38-b52b-8255538e7b1c>

A comprehensive Microsoft Office guide (two pages) for creation and use of PivotTables in Excel, with some screenshots. Sections on this page include (but are not limited to):

- Display options for whole table to effectively show totals/subtotals for groups
- Formatting display of items/labels with no data in either rows or columns
- Rearranging data within table
- Using data filters
- Copying existing fields to display information that was obtained using different calculations
- Definitions of each element in the PivotTable Field List (toolbar that opens on the right when you click on a PivotTable)

3. <https://blog.udemy.com/excel-formulas/>

A very detailed guide for 10 Excel formulas that make calculations and navigation in large sheets of data much easier. The page goes into great detail for the more complex functions so that users know how to write them without using pop-up windows for each argument in the function. There is also a 7-minute video that shows how to 'read' the arguments in a complex formula.

4. <https://www.edx.org/course/introduction-to-data-analysis-using-excel>

This 4-week edX course on Data Analysis in Excel from two instructors at Microsoft and DataRails focuses on teaching pivot tables and charts, calculations in the tables, and formulas. The course is free.

Presentation

1. <https://prezi.com/gx2bm0n9u01f/8-tips-for-an-awesome-prezi/?webgl=0>
This is a Prezi about how to make effective Prezi slideshows. Each of the 8 tips has examples, details, Dos and Don'ts, and so on. A note on tip #8: most students probably will not have access to .swf files. In that case, they can try to find high resolution images (.jpg or .png) to use when zooming in more than a few degrees.
2. <https://www.lifehack.org/articles/technology/15-prezi-tips-and-tricks-ace-your-presentation.html>
These Lifehack tips focus on more technical aspects of Prezi. They describe various tools that can help to accentuate information (e.g., highlights, shapes, assets, diagrams, etc.), as well as explain how to keep a consistent style throughout the Prezi using the (+) button.
3. <https://www.universalclass.com/articles/business/using-visual-aids-in-effective-presentations.htm>
This website discusses the Dos and Don'ts of visual aid use, including proper font size and use of colors. It also provides criteria for choosing relevant visual aids.
4. <https://courses.lumenlearning.com/wmopen-compapp/>
Modules 8 and 9 of this Lumen lesson for Computer Operations cover Microsoft PowerPoint. Module 10 discusses how to integrate Word, Excel, and PowerPoint together. The specific sections for PowerPoint include:
 - Organizing slides
 - Headers and footers
 - Themes
 - Transition effects
 - Images and clip art
 - Videos
 - Arranging objects

Databases

1. <https://support.office.com/en-us/article/introduction-to-importing-linking-and-exporting-data-in-access-08422593-42dd-4e73-bdf1-4c21fc3aa1b0>

This is a landing page for Microsoft Access, which lists links to specific Help pages for the following actions (more on the website):

- Importing/linking to data between two Access databases
- Importing/linking to data in an Excel workbook or a text file
- Importing/linking to data in an SQL Server database or Azure SQL Server database (Access 2016 only)
- Importing contacts from an Outlook address book
- Exporting data to Excel, text files, Word documents, dBASE, a SharePoint site
- Exporting contacts from Access to an Outlook address book

In addition, there are miscellaneous tips at the bottom of the page for running, saving, and scheduling import/export specifications in Access.

2. <https://support.office.com/en-us/article/create-reports-for-a-new-database-cedce547-9f48-4354-8eac-66fb0d4d8656>

This is a free 8-step Microsoft Office course that teaches how to create reports for a new Access database (for Access 2010 and newer). Each page in the course uses a visual aid or screenshot to supplement the text. Lessons include grouping and sorting data, adding sums in the report, choosing report layouts, and using the Report Wizard or creating reports from scratch. The last page of the course outlines all lessons together.

3. <https://www.coursera.org/learn/sql-data-science>

Coursera has partnered with IBM to offer a 4-week online course for using databases and basic SQL. Each week contains video lessons, readings, and practice quizzes. If you follow the link, you can expand the syllabus to explore the lessons given during each week.

4. <https://www.techrepublic.com/blog/microsoft-office/use-a-form-to-display-a-list-of-reports-and-queries-in-an-access-database/>

This TechRepublic blog entry instructs users how to see at a glance all reports and queries that are created for a database in Access.

- 5a. <https://www.teachucomp.com/courses/>

TeachUcomp, Inc., is a licensed software training center in Holt, MI. The center provides tutorials and courses for Microsoft Office, small business accounting, web design, programming languages, and project management, among others. The link above is the landing page for all courses offered.

- 5b. <https://www.teachucomp.com/create-tables-in-access/>

This is a tutorial for creating tables in Access using *Design View*, with screenshots. The page provides a table of types of field data that can be assigned in Access 2013 or newer. It also gives specific instructions in 16 steps for using *Design View*. There is also a 6-minute video lesson for creating relational database tables in Access 2016.