Information Technology Knowledge Base

This document contains a list of resources and tips for enhancing students' information technology skills. Each section of the document addresses one of the major criteria taken from the College of Business Administration technology use assessment rubric. Sections start on a new page and follow the order in which they are listed in the rubric.

Several resources or tips are presented for each criterion and are relevant for one or more specific dimensions listed under that criterion. In the *Presentation* section, general style tips, as well as more specific guides for Prezi tools, are provided. In the *Databases* section, all resources use Access as a database tool. Other software is beyond the scope of this document.

Students are encouraged to consult resources as necessary, especially for areas of weakness. Students may find one or more resources listed here beneficial, but they are not required to follow each resource closely.

Word Processing

1. https://www.techrepublic.com/blog/10-things/10-plus-advanced-formatting-tips-for-word-users/
   These technical tips for formatting in Word will come in extremely useful. They range from pasting text from outside sources, but using the document's format, to keeping two words together on one line (when the second word is too close to the page margin), to eliminating space between paragraphs, etc. Screenshots from older Word versions are provided on the webpage for ease of navigation.

2. Most commonly used word processing software (e.g., Microsoft Word, OpenOffice Writer) has a built-in grammar and spelling check. For the most part, this is a very useful tool. Still, students should always **manually proofread** their papers before submission; a paper that contains many spelling and grammar errors will be deemed unprofessional and may result in lost points on the assignment.
   - **First**, use the built-in grammar and spelling check to detect typos, repeated words (e.g., "he went to the *the* store"), and other obvious mistakes.
   - **Second**, if you are worried that your writing style is not as great as you would like, consider turning on Style suggestions in Word. In the latest version, this can be found by going to: *File > Options > Proofing > 'When correcting spelling and grammar in Word' > Settings*. Here, you can check all things you want Word to review for you. The options are vast, including use of clichés, wordiness, slang, gender-specific language, and many others.
   - **Third**, carefully re-read your paper (do not skim, but read every sentence) to locate less obvious mistakes. For example, in the process of shaping an idea, the student may write a sentence and leave it unfinished, move on to the next idea, and forget to return to the unfinished sentence. Built-in grammar checks do not detect all possible writing errors. Even the best writers and spelling bee champions can make careless mistakes that can be easily prevented by manual proofreading.

3. http://guides.lib.umich.edu/c.php?g=283073&p=1886011
   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 you to track changes made to the document and comments left by each user, and each member's contributions appear in a different color. You can also learn how to consolidate edits from multiple users into the final version, and how to resolve comments and accept suggested edits. Screenshots 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 on use of the References feature in Word. If this feature is turned off, you may have to enable it by right-clicking anywhere on the tabs at the top and choosing *'Customize Ribbon'*. You can also insert citations from previous documents into a new document using Master List!

Spreadsheets/Statistical Applications

1. https://business.tutsplus.com/tutorials/format-excel-spreadsheet--cms-30160
   A guide for formatting Excel spreadsheets, with screenshots. Tips here include turning off the grid (default look, with each cell having borders), use of conditional formatting (used for highlighting top/bottom values in a set), formatting data as a table, etc. There is also a brief video guide for stylistic options.

2. 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
   Comprehensive Microsoft Office guide for 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://support.office.com/en-us/article/create-a-pivotchart-c1b1e057-6990-4c38-b52b-8255538e7b1c
   Microsoft Office guide for creating PivotCharts. Options are: use Recommended Charts, create PivotTable and PivotChart at the same time, use an existing PivotTable, use external data for PivotChart. The webpage concludes with ways of formatting the PivotChart using fields used in the PivotTable. A useful characteristic of Pivot elements (tables & charts) is that they do not have to be in the same Excel worksheet. *Note:* this page has separate steps for Mac users, and you can switch to Mac under the first screenshot.

4. 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. It may look quite technical, but it really isn't; the page goes into great detail for the more complex functions so that you know how to write them without using pop-up windows for each argument in the function. There is also a 7-min video that shows you how to 'read' the arguments in a complex formula.
   - If you are not familiar with parts of a formula, click the fx button and there you can read the description of each argument in the formula by clicking on the white fields. Practice applying the function with simple datasets if you learn better with a hands-on approach.

1. http://www.ncsl.org/legislators-staff/legislative-staff/legislative-staff-coordinating-committee/tips-for-making-effective-powerpoint-presentations.aspx
Provides a comprehensive list of short and succinct tips for making effective PowerPoint visuals, separately for text, color and graphics. Tips include:
   - Use font size no smaller than 24 point
   - Avoid long sentences
   - Use a 6x6 rule for bullet point slides
   - Use contrasting text and background, with dark text on light background
   - Know your audience
   - Check spelling and grammar

2. 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.

3. https://visage.co/11-design-tips-beautiful-presentations/
The majority of points made on this webpage are useful. Some exceptions:
   - It is still relevant to use **bullet points**. Text presented in bullet-points separates messages into neat chunks of important information, whereas a paragraph of text would be unreadable.
   - You can use PowerPoint and Prezi **templates**, as long as their style suits the topic and purpose of your presentation. That is, don't use a template with a school theme (e.g., red apple and notebook in the background) if you are presenting a business plan, don't use a floral theme when presenting a serious issue, etc.
   - You can use **transition** animations, as long as they are quick and not silly (avoid having new text bounce onto the screen, instead opt for the "Fade in" transition option and shorten the animation time to .25s instead of .50s).

4. 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, try to find high resolution images (.jpg or .png) to use when zooming in a lot. If you found a stock image you liked, search for it in other resolutions, or filter your Google image search results by image size ('Large').

5. https://www.lifehack.org/articles/technology/15-prezi-tips-and-tricks-ace-your-presentation.html
These 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.

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://www.teachucomp.com/create-tables-in-access/
Tutorial for creating tables in Access using *Design View.* Screenshots are provided. 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 a also a 6-minute video lesson for creating relational database tables in Access 2016.

3. https://support.office.com/en-us/article/create-a-table-8fdc65f9-8d40-4ff5-9212-80e6545e8d87
If you are not sure what a specific data type means in Access, this Microsoft Office page provides examples of how Access interprets common types of data (e.g., text, hyperlinks, date/time). In addition, the page covers relationships between pieces of data in a table, with descriptions of *primary keys* and *foreign keys* (both are kinds of fields in the table that are part of a table relationship)*.*

4. 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.

5. https://www.jinfonet.com/resources/bi-defined/database-reporting/
General information about what database reports are, their varieties, and how they function. ***Note:*** Not all of this information may be relevant to the tools utilized in CBA courses.

6. https://www.techrepublic.com/blog/microsoft-office/use-a-form-to-display-a-list-of-reports-and-queries-in-an-access-database/
Here, you can learn how to see at a glance all reports and queries that are created for a database in Access.