



Information Technology Sequence 2

Code: 8142

MISSOURI INFORMATION TECHNOLOGY

SEQUENCE 2

Test Code: 8142

Version: 01

Computer Applications 50%

Desktop Publishing 25%

Multimedia 25%

Specific competencies and skills tested in this assessment:

Computer Applications

Execute Basic Computer Operations

Use program interface (e.g., menu items, ribbons, toolbars, dialog boxes)

Manage and transfer files

Identify file formats and extensions

Perform basic troubleshooting and maintenance

Identify hardware and software specifications to purchase a computer (e.g., RAM, processor, hard drive, software, and price)

Save files to various storage devices (e.g., CDs, USB, hard drive, DVD)

Determine appropriate software applications for tasks

Construct Business Documents using Word Processing Applications

Create and format business documents (e.g., letters, memos, outlines, newsletters, and reports)

Set printer specifications

Proofread and edit documents

Manipulate the features of word processing software to enhance documents (e.g., headers, footers, tabs)

Create and format tables

Create mail-merge documents

Insert and manipulate graphics

Create documents using templates

Prepare envelopes and labels

Illustrate the use of enhancement features (e.g., borders, lines, shading, bold, bullets)

Demonstrate use of automatic features (e.g., AutoCorrect, spell-check, thesaurus)

Missouri Information Technology – Sequence 2 (continued)

Construct Business Documents using Spreadsheet Applications

Create, design, and edit spreadsheets
Create basic formulas with addition, subtraction, multiplication, and division
Format cell, column, and row contents (e.g., font, color, alignment, shading, decimal)
Format columns and rows
Use basic functions/formulas (e.g., auto sum, average, IF)
Create, format, and edit charts and graphs
Interpret and organize spreadsheet data (e.g., sort and filter)
Set print specifications for formulas, graphs, worksheets
Use relative and absolute cell references

Construct Business Documents using Database Applications

Create and manipulate a database
Process material using database features (e.g., sort, filter, and merge)
Distinguish between different field types (e.g., text, numeric)

Construct Business Documents using Presentation Applications

Create, format, and edit presentations
Enhance presentations (e.g., sound, animation, graphics, transitions, and video)
Apply design and layout principles to presentations
Set print specifications for outline, slides, handouts
Utilize proper presentation etiquette (e.g., number of bullets, lines, words, and notes)
Integrate input from various software applications

Explore the Internet and Online Classroom Portals

Demonstrate principal usages of online communication (e.g., upload, download, attaching files)
Identify copyright principles (e.g., public domain, copy protection, licensing)
Evaluate Internet resources

Desktop Publishing

Discuss Foundational Concepts

Identify and apply tools and palettes
Explain copyright issues related to graphic arts/desktop publishing (e.g., legal, ethical)
Demonstrate sensitivity to bias (e.g., culture, gender, age)
Plan a preliminary layout for a publication using manual or digital tools
Develop a work schedule to meet deadlines
Use correct grammar, punctuation, and spelling

Perform Publication Layout

Set appropriate page layout options (e.g., margins, columns, double-sided, facing pages, page numbering)

Missouri Information Technology – Sequence 2 (continued)

Demonstrate Typography Concepts

Compose text (e.g., headings, captions, body text)

Import text files and other word processing documents into publications

Explain the usage of font types (e.g., serif, sans serif, decorative)

Manipulate text features and formats (e.g., wordwrap, hyphenations, drop cap, color, gradient, text path)

Manage Images Appropriately

Create images

Determine appropriate image file formats (e.g., bmp, tiff, jpeg, gif, pict, eps)

Demonstrate Design Concepts

Plan the proper use of white space

Apply the proper use of color

Create an effective focal point (e.g., primary, secondary)

Create appropriate headlines

Position captions

Apply design principles (e.g., movement, balance, symmetry)

Apply layering techniques in publications

Match the design to the appropriate audience

Create Business Promotional Materials

Create a flyer and advertisement

Create stationery sets (e.g., labels, business cards, notepads, invoices, letterhead)

Create multi-page, multi-column documents (e.g., newsletters, magazines, menus, programs)

Create brochures (e.g., single/multiple)

Create promotional items (e.g., CD covers, T-shirts, bumper stickers)

Perform Print Process

Use print preview or WYSIWYG layout before printing

Select an appropriate printer and printer attributes (e.g., duplexing, tray size, paper size)

Convert desktop publication to format for exporting/Web posting (e.g., PDF, HTML)

Develop a Portfolio

Explain ways portfolios can be used

Multimedia

Apply Foundational Concepts

Utilize hardware to manipulate various types of media (e.g., cameras, microphones, graphic tablets)

Use organizational skills to plan multimedia products (e.g., storyboarding, outlining, scripting, task delegation)

Create text using typography principles

Missouri Information Technology – Sequence 2 (continued)

Manage Media Files

Develop electronic file management systems (e.g., project folders, file naming)

Convert files to various formats (e.g., .flv to .avi, .mov to .wmv, .psd to .jpg)

Manage Images

Acquire and import images from a variety of sources (e.g., scanners, cameras, phones)

Apply appropriate image mode for intended application (e.g., convert RGB, CMYK, grayscale)

Compose images using layers and selections

Edit images (e.g., color, filter, tint, contrast, brightness)

Manipulate images (e.g., mask, resize, crop, scale, group/ungroup, zoom, and pan)

Create original artwork using illustrative software

Create Audio Files

Compare and contrast audio formats common size and quality (mp3, .wav, midi)

Rip and import audio from a variety of sources (e.g., CD/DVD, video, Internet)

Create original audio (e.g., voice, instrument)

Mix audio (e.g., layering, trimming, level adjustments)

Apply effects to audio (e.g., noise reduction, amplify, echo)

Apply editing techniques

Create Animations

Create frame-by-frame animations

Apply motion and shape tweens

Modify bitmaps (e.g., trace bitmap, convert to symbol)

Use layers and object modification techniques (e.g., transform, alpha transparency, filters)

Add interactivity to animations with buttons, menus, and scripting

Create Video Files

Develop pre-production documents (e.g., storyboard, shot list)

Apply basic filming techniques (e.g., camera angles, camera movement, lighting, sound)

Access, capture, and import a variety of file sources converting file types, if necessary (e.g., audio, video, graphics)

Arrange video clips, audio clips, titles, and still images on timeline

Manipulate clips (e.g., link/unlink, adjust transparency, set properties, trim, adjust speed/duration)

Synchronize audio with video

Create and Deliver Electronic Presentations

Identify components of effective electronic presentations

Import files into a presentation (e.g., text, images, audio, video)

Apply advanced editing techniques (e.g., build, effects, timing, animation, transitions)

Missouri Information Technology – Sequence 2 (continued)

Create and Utilize Emerging Technologies

Utilize and create collaborative electronic tools (e.g., wikis, blogs, forums)

Utilize web-based technologies to publish media (e.g., screencasts, podcasts, vodcasts, iTunes)

Develop Workplace Readiness Skills

Compare copyright and patent laws for multiple media between educational and workplace settings (e.g., video, text, sound, pictures)

Identify career/self-employment opportunities in multimedia production

Missouri Information Technology – Sequence 2 (continued)

Written Assessment:

Administration Time: 3 hours

Number of Questions: 151

Areas covered:

50%	Computer Applications
25%	Desktop Publishing
25%	Multimedia

Sample Questions:

To navigate to the next cell horizontally and then vertically in a word processing table, press the _____ key.

- A. tab
- B. enter
- C. alt
- D. command

Which of the following can be printed using presentation software?

- A. queries
- B. CD covers
- C. forms pages
- D. notes pages

Which of the following fields would be considered a text data type?

- A. (231) 555-1212
- B. \$137.89
- C. 3/2/2013
- D. 24

Converting information from one program to another is called

- A. importing
- B. exporting
- C. copying and pasting
- D. cutting and pasting

A tilt is a motion of the camera head which moves it

- A. left and right
- B. up and down
- C. in and out
- D. side to side