

Skills Canada National Competition

SCOPE DOCUMENT	
Competition Year	2012
Competition location	Edmonton, AB
Trade Number	9
Trade Name	IT Software Solutions for Business
Level	Post-Secondary

1. INTRODUCTION

1.1 Purpose of the Challenge.

The rapid pace of globalization over the past decade has been largely driven by developments in Information Communication Technology (ICT). IT specialists are increasingly in great demand in several areas, one of which is in providing solutions for business.

These professionals are not merely users of Microsoft Office; they are power users who have an intricate knowledge of each of the applications in the suite. Their skills may be used in a plethora of ways across a multitude of industries, cultures and languages.

Microsoft Office is by far the most widely-used suite of office applications throughout the world, therefore making Software Solutions professionals highly-employable members of the IT community. There are thousands of businesses that are undoubtedly in need of better training in the use of these office applications, and will often benefit greatly from having customized solutions developed for them that suit their individual needs.

What do IT Software Solutions professionals do?

- Develop solutions to businesses' problems
- Use Microsoft Office as a framework to build software solutions
- Analyse business requirements in order to create well-fitting solutions
- Use problem-solving skills and in-depth technical knowledge to build those solutions
- Use communication skills to document their creations in an easy-to-understand way
- Use communication and sales skills to present their solutions to clients

Where do IT Software Solutions professionals work?

IT Software Solutions professionals are employed throughout the following:

- Large enterprises
- Medium-sized businesses
- Small businesses
- As freelancers

They can operate in a wide variety of roles including:

- In a support role
- In a training role
- In a development role
 - providing customization and automation
 - developing totally customized software solutions to a business' requirements
- In a business analyst role providing the data required to enable decision making
- In the daily activities of a company
 - simplifying and improving routine office and business activities

1.2 Duration of contest.

11 hours

Each day will consist of two sessions utilizing Microsoft Office 2010. Each session will be 2 hours and 45 minutes. In each session, competitors may be using any combination of the applications (Word, PowerPoint, Excel, Access).

1.3 Skills and Knowledge to be tested.

Using the Microsoft Office suite, competitors will be required to solve a series of problems. They will work independently while making judgements over the two days of competition according to the specifications given in the project material. The ability to access, store and use files across a network is assumed.

2. CONTEST DESCRIPTION

The Test Project will be in the form of a case study that will represent typical functions that might be asked of an IT professional who is highly competent in the area of Microsoft Office. The scenario will be presented as a project with clearly defined deliverables. These deliverables will be grouped to enable a modular approach whereby discrete tasks are completed within a session. The project will be divided into 4 sessions

with 2 sessions each day. The competitors will select the appropriate software for the tasks.

The scenario for this competition will include an extensive simulation of workplace activities related to the automotive industry. Competitors may be required to customize and automate elements within the applications.

Competitors will submit their work at the end of each session. Work files will be provided when needed.

2.1 Tasks that may be performed during the contest*

○ Database

Competitors will be expected to use the full functionality of Microsoft Access. Database design skills will be required.

○ Build a database

Competitors must know and understand:

- The importance of using industry-accepted conventions for the naming of database objects
- The need for standardization in the naming of fields
- How to ensure data integrity
- How to avoid data redundancy

Competitors must be able to:

- Set up tables with correct fields, keys and data types
 - Apply table and field properties (validation rules, input masks, lookups etc)
 - Import data from a variety of sources and in a variety of formats
 - Designate primary and foreign keys
 - Set up correct relationships between tables
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- Design and use forms

Competitors must know and understand:

- How to create a form to a specified design and layout

Competitors must be able to:

- Create forms and sub forms for a range of uses
- Control data entry through forms
- Add and set up appropriate controls in forms
- Control record navigation in a form
- Set properties

- Query a database

Competitors must know and understand:

- How to design and execute queries to generate results as specified

Competitors must be able to:

- Filter & search records
- Construct and use select, parameter and action queries
- Add a calculated field to a query
- Perform calculations on a record grouping

- Design and use reports

Competitors must know and understand:

- How to design and produce reports to generate results as specified

Competitors must be able to:

- Produce and modify reports (simple, grouped, summary and sub reports) following a stated layout and format
- Create and use pivot tables and charts
- Set report properties
- Use calculated fields in reports
- Format a report for printing

- Share data across applications

Competitors must know and understand:

- How to extract and use data from other applications that may be in differing file formats
- How to output data from Access to other applications

Competitors must be able to:

- Import and export data according to specifications
- Integrate data with external sources

- Customize and automate processes

Competitors must know and understand:

- How to create and design the interface to suit client requirements as specified
- How to provide the user with options for simple execution of complex processes

Competitors must be able to:

- Automate loading and display of objects
- Create and use macros to automate processes
- Customize the Access environment

- **Spreadsheets**

Competitors will be expected to use the full functionality of Microsoft Excel; however competitors will not be expected to have in-depth knowledge or expertise in any particular field (eg. financial, engineering, statistical, mathematical, etc.)

- Construct a spreadsheet

Competitors must know and understand:

- The power of a well-designed and well-constructed spreadsheet to improve business productivity and aid decision making with its powerful data analysis and reporting functions

Competitors should be able to:

- Use formulas as required
- Create, modify and format spreadsheets using the full range of Excel's formatting features including conditional formatting
- Use a variety of built-in functions (statistical, mathematical, text, logical, financial, date and time).

- Use Design and Analysis tools

Competitors must know and understand:

- How to design and use analysis tools in Excel

Competitors should be able to:

- Perform What If Analysis using Goal Seek / Solver / Scenario Manager
- Analyse Data Using PivotTables and PivotCharts

- Use Data and Table functions

Competitors must know and understand:

- How to manage and analyse data

Competitors should be able to:

- Define and apply data filters
- Use the sub-totalling feature
- Query spreadsheet data
- Set up and apply validation rules to spreadsheet data

- Share data across applications

Competitors must know and understand:

- How to extract and use data from other applications that may be in differing file formats
- How to output data from Excel to other applications

Competitors must be able to:

- Import and export data according to specifications
- Integrate data with external sources

- Printing Spreadsheets

Competitors must know and understand:

- How to set up worksheets and workbooks for printing

Competitors must be able to:

- Set printing options to output a chart, worksheet, workbook, PivotTable report according to specifications

- Charts and Graphs

Competitors must know and understand:

- How to present spreadsheet data in various graphical formats

Competitors must be able to:

- Create, modify and format the full range of charts according to specifications
- Create dynamic charts
- Create and use PivotTables and PivotCharts

- Customize and automate processes

Competitors must know and understand:

- How to create and design the interface to suit client requirements as specified
- How to provide the user with options for simple execution of complex processes
- How to customize layouts

Competitors must be able to:

- Automate loading and display of objects
 - Create and use macros to automate processes
 - Hide/unhide/freeze rows and columns
 - Set up templates with appropriate protection
 - Customize the Excel environment
 - Customize an Excel worksheet
 - Enhance worksheets using themes
 - Work with comments
- Use graphical objects

Competitors must know and understand:

- How to enhance visual appeal using graphic objects

Competitors must be able to:

- Insert, modify and format graphic objects
 - Change the order of layered graphic objects
 - Group graphic objects
- Use multiple workbooks

Competitors must know and understand:

- How to work with multiple workbooks

Competitors must be able to:

- Create a workspace
 - Consolidate data
 - Link cells in different workbooks
 - Edit links
- Use auditing features

Competitors must know and understand:

- The importance of controlling data accuracy through auditing

Competitors must be able to:

- Trace cells
- Troubleshoot errors in formulas
- Troubleshoot invalid data and formulas
- Watch and evaluate formulas

- **Word Processing**

Competitors will be expected to use the full functionality of Microsoft Word. Built-in spell check and thesaurus functions will not be tested

- Create a document

Competitors must know and understand:

- How to design, create and modify a range of business documents

Competitors must be able to:

- Apply the full range of text, paragraph, page and document formatting
- Create, edit and format tables
- Create and modify charts
- Insert, draw, modify and manipulate graphical objects

- Mail Merge

Competitors must know and understand:

- How to generate mass-mailing documents

Competitors must be able to:

- Set up a main document
- Connect the document to a data source
- Refine the list of recipients by sorting and filtering data
- Apply conditions and rules

- Referencing

Competitors must know and understand:

- How to set up and apply the referencing features of Microsoft Word

Competitors must be able to:

- Set up and use indexes, cross-references, captions, tables of contents, bibliography
 - Set up and use footnotes and endnotes
 - Use fields and calculations in documents
 - Create, manage, revise, and distribute long documents and forms.
 - Prepare documents for printing or for publishing electronically
- Share data across applications

Competitors must know and understand:

- How to extract and use data from other applications that may be in differing file formats
- How to output data from Word to other applications

Competitors must be able to:

- Import and export data according to specifications
 - Integrate data with external sources
- Customize and automate processes

Competitors must know and understand:

- How to create and design the interface to suit client requirements as specified
- How to provide the user with options for simple execution of complex processes
- How to provide a custom layout using a template
- How to exploit the full potential of Word forms

Competitors must be able to:

- Automate the loading and display of objects
- Create and use macros to automate processes
- Provide user interactivity by means of forms and fields
- Protect forms
- Create, edit and apply themes to documents
- Create, modify and use templates

- **Presentations**

Competitors will be expected to use the full functionality of Microsoft PowerPoint. Drawing and modifying of graphical objects will be limited to the capabilities of PowerPoint; no drawing packages will be used in the Test Project

- Create a presentation

Competitors must know and understand:

- How to design, create and modify a presentation according to given specifications

Competitors must be able to:

- Create and modify slides using a variety of layouts and formats
 - Use text effects
 - Include tables and charts in a presentation
 - Import data (text, spreadsheet, charts, etc)
 - Hide/unhide slides

- Add special effects to presentations

Competitors must know and understand:

- How to add special effects to presentations according to given specifications

Competitors must be able to:

- Add multimedia elements
 - Customize slide component animation
 - Insert media files (movie, sound)

- Add graphical objects to a presentation

Competitors must know and understand:

- How to create, format and apply graphical objects to a presentation according to given specifications

Competitors must be able to:

- Insert and manipulate Illustrations, for example:
 - Shapes
 - WordArt
 - SmartArt
 - Diagrams

- Graphical Objects
- Modify and work with objects
 - Change object orientation
 - Format objects
 - Group and ungroup objects
 - Arrange objects
- Customize and automate processes

Competitors must know and understand:

- How to create and design the interface to suit client requirements as specified
- How to provide the user with options for simple execution of complex processes
- How to Customize a Design Template

Competitors must be able to:

- Automate loading and display of objects
 - Create and use macros to automate processes
 - Create, modify and use templates
 - Set up a slide master
 - Customize slide layouts
 - Create custom themes
 - Customize bullets
 - Add common slide information
 - Modify the notes master
 - Modify the handout master
- Prepare a presentation for delivery

Competitors must know and understand:

- The importance of professionalism in preparing a slide show for delivery according to given specifications

Competitors must be able to:

- Spell check
- Arrange slides
- Add transitions
- Apply animation effects
- Execute other programs during a slideshow

- Create speaker notes
- Print a presentation
- Package a presentation
- Set up a custom show
- Annotate a presentation
- Create a presenter-independent slide show
- Set up and apply automatic timings to a slideshow

- Collaborate on a Presentation

Competitors must know and understand:

- How to share slide content

Competitors must be able to:

- Publish slides to a slide library
- Share a presentation.

* The criteria listed in each section above are intended as guidelines only. All criteria may or may not be included.

3. EQUIPMENT, MATERIAL, CLOTHING

3.1 Equipment and material provided by Skills/Compétences Canada

- Computer workstation
 - English keyboard will be supplied and French keyboard upon request (see additional information section 6).
- Software:
 - Windows 7 (French and English version)
 - Microsoft Office 2010 (French and English version)
 - Word
 - Powerpoint
 - Excel
 - Access

3.2 Equipment and material provided by the competitor

- The use of a headset is not permitted.
- Earplugs are permitted.

3.3 Required clothing (Provided by competitor)

4. SAFETY REQUIREMENTS

4.1 List of required personal protective equipment (PPE) provided by competitors

No PPE required

4.2 List of required personal protective equipment (PPE) provided by Skills/Compétences Canada (SCC)

No PPE required

No additional PPE will be supplied by SCC

5. ASSESSMENT

5.1 Point breakdown

POINT BREAKDOWN	/1000
Document Processing	/250
Presentation and Graphics	/250
Spreadsheet	/250
Database	/250

6. ADDITIONAL INFORMATION

6.1 Consecutive translation

If a French language translator is required on site, the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this service might not be guaranteed.

6.2 Software requirements

If French software is required the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this software might not be guaranteed.

6.3 Computer keyboard requirements

English Keyboards will be provided. If a French keyboard is required the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this keyboard might not be guaranteed.

6.4 Tie (No ties are allowed)

In the event of a tie, the position will be awarded to the competitor displaying the most consistent skills in all four competition areas.

6.5 Competition rules

Please refer to the competition rules for all general SCNC information.

7. NATIONAL TECHNICAL COMMITTEE MEMBERS

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