



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development (WFD)

COURSE: **CSP 2213: Advanced Excel and Access**

Effective Date: Spring 2025

Submitted Date: May-24

Credit Hours: 3

IAI Number (if applicable): N/A

Complete all that apply or mark "None" where appropriate:

Prerequisite(s): CSP 1203 or CSI 1002

Enrollment by assessment or other measure? Yes No

If yes, please describe: CSP 1203 Proficiency Exam score of 85% or higher.

Corequisite(s): None.

Pre- or Corequisite(s): None.

Consent of Instructor: Yes No

Delivery Method: <input checked="" type="checkbox"/> Lecture	2 Contact Hours (1 contact = 1 credit hour)
<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
<input checked="" type="checkbox"/> Lab	2 Contact Hours (2-3 contact = 1 credit hour)
<input type="checkbox"/> Clinical	0 Contact Hours (3 contact = 1 credit hour)
<input type="checkbox"/> Practicum	0 Contact Hours (2-4 contact = 1 credit hour)
<input type="checkbox"/> Internship	0 Contact Hours (5-10 contact = 1 credit hour)

Offered: Fall Spring Summer

CATALOG DESCRIPTION:

This course is a continuation of Microsoft Office (CSP 1203) and is designed to further develop skills in Microsoft Office applications of Excel and Access and the integration of office programs. The course prepares students for the Microsoft Office Specialist (MOS) certification exam. A Microsoft Office Specialist Voucher is included. The Microsoft desktop applications are required and free to students.

ACCREDITATION STATEMENTS AND COURSE NOTES:

None.

COURSE TOPICS AND CONTENT REQUIREMENTS:

1. Microsoft Excel Data Tools, Data Types, and Illustrations
2. Microsoft Excel Logical, Statistical, Financial, and Lookup Functions
3. Microsoft Excel Templates and Collaboration Microsoft Excel
4. Microsoft Excel Macros
5. Microsoft Excel Data Analysis Tools
6. Microsoft Excel Business Intelligence
7. Microsoft Excel Customize, OneDrive, and Office Online
8. Microsoft Access Templates, Advanced Relationships, and Macros
9. Microsoft Access Advanced Queries and Reports
10. Microsoft Access Advanced Forms
11. Microsoft Access Integrating Applications
12. Microsoft Access Design and Manage Databases, Using SQL
13. Microsoft Access Customizing Options, and Account

INSTRUCTIONAL METHODS:

- Demonstrations
- Discussion
- Hands-on Activities
- Lecture
- Simulation
- Videos

EVALUATION OF STUDENT ACHIEVEMENT:

- Attendance
- Capstone Projects
- Case Studies
- Final Exam
- Homework
- Participation
- Tests

INSTRUCTIONAL MATERIALS:

Textbooks

Textbooks used in the course are at the discretion of the full-time faculty. Part-time faculty members are to use the textbook designated for Advanced

Business Applications by the Program Coordinator for Office Professionals and the Dean of Workforce Development.

The customized textbook includes chapter material from:

1. Stewart, Kathleen, and Randy Nordell. Microsoft Excel 365 Complete: In Practice. First ed., McGraw Hill, 2023. ISBN 9781266773495
2. Stewart, Kathleen, and Randy Nordell. Microsoft Access 365 Complete: In Practice. First ed., McGraw Hill, 2023. ISBN 9781266774010

Resources

Inclusive Access for McGraw-Hill SIMnet learning platform.

Computer Applications:

1. Microsoft Excel Desktop Application
2. Microsoft Access Desktop Application
3. IVCC student email account
6. Brightspace course management system

Other:

1. McGraw-Hill ReadAnywhere app
2. Audio/video resources
3. Online resources

LEARNING OUTCOMES AND GOALS:

Institutional Learning Outcomes

- 1) Communication – to communicate effectively.
- 2) Inquiry – to apply critical, logical, creative, aesthetic, or quantitative analytical reasoning to formulate a judgement or conclusion.
- 3) Social Consciousness – to understand what it means to be a socially conscious person, locally and globally.
- 4) Responsibility – to recognize how personal choices affect self and society.

Course Outcomes and Competencies

1. Microsoft Excel Data Tools, Data Types, and Illustrations
 - 1.1. Link data and consolidate data by position and category.
 - 1.2. Insert Illustration, hyperlinks.
 - 1.3. Apply workbook security.
2. Microsoft Excel Functions Logical, Statistical, Financial, and Lookup
 - 2.1. Apply DSUM and DAVERAGE functions.
 - 2.2. Apply Logical Functions: AND, OR, nested, IFS, SWITCH.
 - 2.3. Apply Reference Functions: XMATCH, INDEX, UNIQUE, SORT.

Effective Date: Fall 2024

- 2.4. Apply Date and Time functions: TODAY, LOCALE, WEEKDAY, WORKDAY.
- 2.5. Apply Text Functions: TEXT, REPT, UPPER, LOWER, PROPER.
- 2.6. Apply Financial functions: PV, FV, NPER.
- 2.7. Apply Statistical, Math, and Trig functions: SUMIFS, AVERAGEIFS, STDEV.P.
3. Microsoft Excel Templates and Collaboration
 - 3.1. Create custom templates.
 - 3.2. Create data validation and form controls.
 - 3.3. Create worksheet/workbook protection.
 - 3.4. Create shared workbook properties in OneDrive.
4. Microsoft Excel Develop and Use Macros
 - 4.1. Create and record macros.
 - 4.2. Create relative references.
 - 4.3. Assign Excel form control.
 - 4.4. Edit VBA macro code.
 - 4.5. Apply Active X control.
 - 4.6. Display user forms.
 - 4.7. Use macro-only workbook.
5. Microsoft Excel Data Analysis Tools
 - 5.1. Create and manage scenarios.
 - 5.2. Use goal seek, solver, analysis toolpak, 3-D maps.
 - 5.3. Build one-and two-variable data table.
 - 5.4. Apply array formulas.
 - 5.5. Create a forecast worksheet.
6. Microsoft Excel Business Intelligence
 - 6.1. Build Excel queries and use power query editor.
 - 6.2. Merge, append, and manipulate data queries.
 - 6.3. Explore data models in power query editor.
 - 6.4. Apply PivotTable slicer, timeline, custom calculation, and named set.
 - 6.5. Design dashboards with PivotTables, and Pivot Charts.
 - 6.6. Explore Power Pivot, measure, KPI, and DAX.
7. Microsoft Excel Customize Excel, OneDrive, and Office Online
 - 7.1. Customize the Ribbon, Quick Access toolbar and working environment.
 - 7.2. Modify account settings.
 - 7.3. Share files and folders in OneDrive and Excel Online.
 - 7.4. Explore Forms, Outlook, People, Calendar, and OneNote.
8. Microsoft Access Templates, Advanced Relationships, and Macros
 - 8.1. Customize a template database.
 - 8.2. Use Lookup Wizard.
 - 8.3. Implement many-to-many relationship with junction table and intersection table.

- 8.4. Create macros and submacros using events, actions, arguments, and program flow.
9. Microsoft Access Creating Advanced Queries and Reports
 - 9.1. Create action, update, and delete queries.
 - 9.2. Use query wizard to find duplicate records and unmatched records.
 - 9.3. Create subquery using use top value query property.
 - 9.4. Create report sections.
 - 9.5. Create parameter report.
10. Microsoft Access Creating Advanced Forms
 - 10.1. Create and edit in design view by enhancing appearance.
 - 10.2. Modify form properties, enable and lock controls.
 - 10.3. Explore one-to-many form, create and link main form to subform.
 - 10.4. Use calculated and reference controls
 - 10.5. Add tab control and modify navigation.
 - 10.6. Capture parameter data.
11. Microsoft Access Integrating Applications
 - 11.1. Importing data.
 - 11.2. Exporting data to other applications and format.
 - 11.3. Create mail merge.
12. Microsoft Access Integrating Applications.
 - 12.1. Analyze and document database design.
 - 12.2. Use performance analyzer tool, splitter tool, security tool.
 - 12.3. Modify database using SQL.
13. Microsoft Access Customizing
 - 13.1. Customize account options
 - 13.2. Using Office Online
 - 13.3. Exploring Microsoft 365 applications