

ECON 3730 - Advanced Excel and Business Analytics Tools

Fall 2026 Syllabus, Section 01, CRN 43716,

Credit hours: 3

Instructor

Joseph Palardy

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Public Instructor Information

- **Instructor Title:** Professor, Lariccia School of Accounting & Finance
- **Instructor Professional Qualifications:** Ph.D., Economics, West Virginia University, 2002
- **Instructor Office Location:** Williamson Hall 3369
- **Instructor Office Phone:** 330-941-3430

Course Description

3730. Advanced Excel and Business Analytics Tools. This course introduces students to essential tools and techniques used in business analytics. It covers advanced spreadsheet functionalities, data workflow design, Microsoft Power Query, and foundational concepts in databases, tailored for a general audience. Crosslisted with: BUS 3730. Prereq.: BUS 3700 AND 2.5 GPA. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Optional	no readings		

There is no required textbook for this course, and the YSU Bookstore lists this section as requiring no purchased materials. All course materials, information, and assignments are available through Blackboard, including guided walkthroughs, sample datasets, and reference documentation for each module.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Module 1 walkthroughs and sample workbooks (Blackboard)	Module 1: Foundations of Excel - interface; Tables; array functions (SEQUENCE, FILTER, SORT, UNIQUE); lookups (XLOOKUP, INDEX/MATCH)	Embedded (25) and Putting It Together #1 (100) due Sun 8/30, 11:59 p.m. (grace to Mon 8/31, 1:00 p.m.)
8/31	Module 2 walkthroughs and sample workbooks	Module 2: Advanced Excel - LET; LAMBDA; BYROW/BYCOL; MAP, SCAN, REDUCE; PIVOTBY/GROUPBY	Embedded (25) and Putting It Together #2 (100) due Sun 9/6, 11:59 p.m. (grace to Mon 9/7, 1:00 p.m.)
9/7	Module 3 walkthroughs and multi-table datasets	Module 3: Multiple Tables and Data Modeling - relational data; joins; star schema; Excel Data Model; Power Pivot	Labor Day Mon 9/7, University closed - module dates unchanged
9/14	Module 4 walkthroughs and raw source files	Module 4: Power Query ETL - ETL workflow; extracting and loading; transformations; dimension tables; Power Query vs formulas	Embedded (25) and Putting It Together #4 (100) due Sun 9/20, 11:59 p.m.
9/21	Module 5 walkthroughs; Power BI Desktop on Windows (own machine or ysu.apporto.com)	Module 5: Power BI Foundations - architecture; Get Data; semantic models; measures (SUM, AVERAGE, DIVIDE); report pages	Embedded (25) and Putting It Together #5 (100) due Sun 9/27, 11:59 p.m.

9/28	Module 6 walkthroughs and reference documentation	Module 6: Advanced Desktop Skills - custom columns; date tables; text functions in M and DAX; drill-through, bookmarks, buttons, tooltips	Embedded (25) and Putting It Together #6 (100) due Sun 10/4, 11:59 p.m. (grace to Mon 10/5, 1:00 p.m.)
10/5	Module 7 readings on governance and deployment; capstone brief	Module 7: Architecture, Governance, and Capstone - connection modes; data flow; enterprise security; BI solution design	NO GRACE PERIOD. Embedded (25) and CAPSTONE PROJECT (100) due Sun 10/11, 11:59 p.m. - final cutoff for the course

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.