



WESERV SYSTEMS INTERNATIONAL, INC.

COURSE SYLLABUS	
COURSE CODE	COURSE DESCRIPTION The MS Excel with VBA course demonstrates how to take advantage of MS Excel's data manipulation and presentation capability and enhance this with the power of VBA by automating multi-step tasks into single executable Macros not available from the standard user interface. Macros can be used to delegate many time-consuming and repetitive tasks in MS Excel by using its built-in programming language, VBA (Visual Basic for Applications). By executing special commands and statements and using several Excel's built-in programming tools, you can work smarter than typically possible. This course begins by revisiting basic objects in MS Excel, introducing some advanced functions, then moving into Macros and VBA itself. COURSE EXPECTED OUTCOMES (CEO) After successful completion of the course, the student should be able to: 1. Recall Workbook and Worksheet Objects. 2. Use some advanced MS Excel Functions. 3. Create User Defined Functions using VBA. 4. Record, Save, Modify Excel Macros. 5. Use VBA in developing MS Excel Macros.
SABA Code	
DESCRIPTIVE TITLE	
MS Excel with VBA	
PREREQUISITE (S)	
None	
CONTACT HRS/SESSION	
2 hrs.	

	INTENDED LEARNING OUTCOMES	CEO1	CEO2	CEO3	CEO4	CEO5
1	Review Workbook and Worksheets objects such as sheets, cells, and ranges.	✓	✓			
2	Be acquainted with the functions and syntax of some advanced MS Excel Functions.		✓			
3	Use VBA in creating User Defined Functions and export as Excel Add-In.	✓	✓	✓		
4	Record Macros in MS Excel.				✓	✓
5	Save MS Excel Macros in Personal Macro Workbook				✓	✓
6	Create and Modify MS Excel Macros.	✓	✓		✓	✓
7	Use VBA in developing MS Excel Macros.	✓	✓		✓	✓
8	Use VBA and Macros in solving a given MS Excel problem.	✓	✓	✓	✓	✓

COURSE COVERAGE							
DAY	UNIT EXPECTED OUTCOMES (UEO)	COURSE CONTENT	TEACHING-LEARNING ACTIVITIES (TLA)		ASSESSMENT TASKS (AT)		RESOURCES
			TEACHING	LEARNING	ASSESSMENT	TOOL	
1	<ul style="list-style-type: none">Recall the fundamental features of MS Excel.Recall the different parts of MS Excel and use them as References.Discuss some advance MS Excel Functions.Use cell references as parameters in MS Excel Functions.	1. Review on MS Excel 1.1. Introduction 1.2. Workbook and Worksheet 1.3. Cells and Ranges 1.4. Named References 2. Advanced MS Excel Functions 2.1. CHOOSE, SWITCH 2.2. VLOOKUP 2.3. IF, IFS 2.4. SUMIF, SUMIFS 2.5. COUNTIF, COUNTIFS 2.6. AND, OR, NOT, XOR	<ul style="list-style-type: none">LectureDemonstration	<ul style="list-style-type: none">DiscussionFollow-along	Multiple Choice	Answer Key	<ul style="list-style-type: none">MS Excel Worksheet with sample dataMS Forms
2	<ul style="list-style-type: none">Discuss some more advance MS Excel Functions.	3. Advanced MS Excel Functions 3.1. CONCAT, TRIM, LEFT, RIGHT, MID 3.2. UPPER, LOWER, PROPER 3.3. CONVERT 3.4. ROUND 3.5. DATE, TIME	<ul style="list-style-type: none">LectureDemonstration	<ul style="list-style-type: none">DiscussionFollow-along	Multiple Choice	Answer Key	<ul style="list-style-type: none">MS Excel Worksheet with sample dataMS Forms
3	<ul style="list-style-type: none">Explain User Defined Functions.Create User Defined Functions.	4. User Defined Functions 4.1. Introduction 4.2. Overview on Visual Basic Editor 4.3. VBA Function	<ul style="list-style-type: none">LectureDemonstration	<ul style="list-style-type: none">Hands-on activity	Multiple Choice	Answer Key	<ul style="list-style-type: none">MS Excel Worksheet with sample dataMS Forms

4	<ul style="list-style-type: none">Record, Save, Run, and Edit macros.Use VBA in authoring macros.	5. Macros 5.1. Recording & Saving 5.2. Running 5.3. Editing 5.4. Using VBA in MS Excel Macros 5.4.1. Cleaning VBA Code from Recorded Macro 5.4.2. InputBox and MsgBox 5.4.3. Excel Dot Notation 6. VBA 6.1. Visual Basic Editor	<ul style="list-style-type: none">LectureDemonstration	<ul style="list-style-type: none">DiscussionFollow-along	Hands-on Activity	Rubrics	<ul style="list-style-type: none">MS Excel Worksheet with sample dataMS Forms
5	<ul style="list-style-type: none">Identify cases when and why use VBA.Be acquainted with the VBA Editor.VBA coding syntax.Manipulate MS Excel Objects and Methods.Use different types of data and utilize variables in storing values.	7. VBA 7.1. Excel Objects, Properties, and Methods 7.2. Data Types and Variables 7.3. Function Procedures	<ul style="list-style-type: none">LectureDemonstration	<ul style="list-style-type: none">DiscussionFollow-along	Multiple Choice	Answer Key	<ul style="list-style-type: none">MS Excel Worksheet with sample dataMS Forms
6	<ul style="list-style-type: none">Use decision statements in controlling program flow.Use Looping statements in controlling program flow.Use arrays and collections in storing groups of data.	8. VBA 8.1. Decisions 8.1.1. If 8.1.2. Select...Case 8.2. Loops 8.2.1. Do...Loop 8.2.2. For...Next 8.2.3. For...Each 8.3. Arrays and Collections	<ul style="list-style-type: none">LectureDemonstration	<ul style="list-style-type: none">DiscussionFollow-along	Multiple Choice	Answer Key	<ul style="list-style-type: none">MS Excel Worksheet with sample dataMS Forms
7	<ul style="list-style-type: none">Apply knowledge from the course to automate a task.	9. Course Project Creation		<ul style="list-style-type: none">Group Hands-on Activity	Group Hands-on		MS Forms
8	<ul style="list-style-type: none">Present to the class the output of the Group Hands-on Activity	10. Presentations				Rubrics	

REFERENCES (BOOKS/ONLINE WEBSITES/JOURNALS)		
<p>Acompora, J. (2019, May 29). <i>How to Write User Defined Functions (UDFs) in Excel with VBA</i>. Retrieved from Excel Campus: https://www.excelcampus.com/vba/user-defined-functions-explained/</p> <p>Dodge, M., & Stinson, C. (2022, January 27). <i>Create custom functions in Excel</i>. Retrieved from Microsoft Support: https://support.microsoft.com/en-us/office/create-custom-functions-in-excel-2f06c10b-3622-40d6-a1b2-b6748ae8231f</p> <p>Excelx.com. (2021, 12 2). <i>Features of Excel</i>. Retrieved from Excelx.com: https://excelx.com/features/</p> <p>Gharani, L. (2021, December). <i>Unlock Excel VBA and Excel Macros</i>. Udemy. Retrieved from https://fujitsu.udemy.com/course/excel-vba-and-macros-course/</p> <p>Korol, J. (2019). <i>Microsoft Excel 2019 Programming by Example with VBA, XML, and ASP</i>. Virginia: Mercury Learning and Information.</p> <p>MacDougall, J. (2022, January 27). <i>Incredibly Useful Examples Of Excel User Defined Functions</i>. Retrieved from GoSkills: https://www.goskills.com/Excel/Resources/Excel-user-defined-function-examples</p> <p>Mansfield, R. (2019). <i>Mastering VBA for Microsoft Office 365</i>. Indiana: John Wiley & Sons, Inc.</p> <p>Microsoft. (2021, November 24). <i>Excel functions (alphabetical)</i>. Retrieved from Microsoft Support: https://support.microsoft.com/en-us/office/excel-functions-alphabetical-b3944572-255d-4efb-bb96-c6d90033e188</p> <p>Microsoft. (2022, February 18). <i>Getting started with VBA in Office</i>. Retrieved from Microsoft Documentation - Technical documentation: https://docs.microsoft.com/en-us/office/vba/library-reference/concepts/getting-started-with-vba-in-office</p> <p>RIP Tutorial. (2021). <i>LEARNING excel-vba</i>. RIP Tutorial.</p> <p><i>What's new in Excel 2019/Excel 365, and what's the difference?</i> (2018, 8 22). Retrieved from Plum Solutions: https://plumsolutions.com.au/whats-new-in-excel-2019-excel-365-and-whats-the-difference/</p>		
OTHER REMINDERS		
<ul style="list-style-type: none">At least MS Excel 365 will be used.		

PREPARED BY:

ENDORSED BY:

APPROVED BY:

Ferdinand C. Baguyo	Name	Name
IT Trainer	Role	Role
Date:	Date:	Date: