

**NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES  
OF UKRAINE**

Department of Administrative Management and Foreign Economic Activity

**«APPROVED»**

Dean of the faculty

\_\_\_\_\_ Anatolii OSTAPCHUK

« \_\_\_\_ » \_\_\_\_\_ 2022

**“ENDORSED”**

by department`s meeting

Record № \_\_\_\_ dated on " \_\_\_\_ " 2022

Head of the department

\_\_\_\_\_ Vitalii LUTSIAK

**”REWIEVED”**

Guarantor of the academic program

\_\_\_\_\_ Vitalii LUTSIAK

**Work program of the academic discipline**

**Business-analysis**

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Specialty \_\_\_\_\_ 073 «Management»

Academic program \_\_\_\_\_

Faculty \_\_\_\_\_ Agrarian management

Developers: \_\_\_\_\_ Lutsiak V., Dr (Economics), As. Professor

Kyiv – 2022

## 1. Academic discipline description

“Business-analysis”

| <b>Field of knowledge, specialty, academic program, academic degree</b>                              |                    |           |
|--|--------------------|-----------|
| Academic degree  | Bachelor           |           |
| Specialty  | 073 «Management»   |           |
| Academic Program   | Management         |           |
| <b>Characteristics of the academic discipline</b>  |                    |           |
| Kind   | Mandatory          |           |
| Total number of hours  | 120                |           |
| Number of ECTS credits   | 4                  |           |
| Number of content modules  | 4                  |           |
| Course project (work)  | -                  |           |
| Form of control  | Exam               |           |
| <b>Indices for full-time and part-time forms of study</b>  |                    |           |
|  | Full-time          | Part-time |
| Year of preparation  | 2                  | -         |
| Semester   | 3                  | -         |
| Lectures   | 30 hours.          | -         |
| Practical classes  | 30 hours           | -         |
| Laboratory classes   |                    | -         |
| Independent work   | 60 hours           | -         |
| Individual tasks   | - hours            | -         |
| Number of weekly hours for full-time study form:<br>classroom -<br>independent work of the student - | 4 hours<br>4 hours |           |

## 2. The purpose and objectives of the discipline

The discipline "Business Analysis in Excel" is a theoretical and applied basis for masters to acquire a set of knowledge and skills to work with data sets to analyze the activities of companies and forecast their status.

The discipline "Business Analysis in Excel" is taught to full-time students at the first (bachelor's) level of higher education in specialty 073 "Management" educational and professional program "Management". Teaching uses modern approaches to analyzing data on companies using Microsoft Office Excel, which allows you to: simplify the process of analyzing and forecasting changes in the enterprise through the use of built-in functions, use Visual Basic, optimize the process of processing and obtaining information, provide export of data for analysis and import of the obtained results for decision-making by the relevant services and structural units of the enterprise.

As a result of studying the discipline the student must

**know:**

- basic concepts, basics, and principles of business analysis on behalf of BABOK;
- conditional formatting tools;
- Excel tools for customizing large tables;
- users' interface configuration tools;
- tools for working with objects, creating drop-down menus, buttons;
- key business analysis tasks
- methodical approaches to using VBA to solve business analysis problems;
- main VBA data input and output operators;
- basic operators for programming cycles in VBA when working with databases
- main operators to double-check VBA data entry;
- basic operators for creating different types of macros in Excel using VBA;
- key functions in Excel and their use in business analysis;
- methodical approaches to solving business analysis problems using functions in Excel;
- Excel's basic logical functions and how to use them to solve business analysis problems;
- basic functions of working with indexes in Excel and ways to use them in solving business analysis problems;
- the basic functions of data search and output in Excel, as well as their application in the decision of business analysis problems, are presented;
- the significance and importance of summary tables in solving business analysis problems;

- the meaning and essence of dynamic charts for solving business analysis problems;
- methods for creating and utilizing summary tables
- ways to develop and use dynamic charts.

***be able to:***

- formulate business analysis tasks;
- validate methods and means of resolving business analysis problems
- justify using conditional formatting
- create professional user forms;
- set up the interface to work with large tables;
- make buttons and assign them tasks;
- customize drop-down menus;
- perform work in the VBA interface
- solve key business analysis tasks using VBA;
- develop programs for data input and output in VBA;
- interpreting data sets in order to complete key business analysis tasks
- ensure the protection of information;
- use logical functions in Excel in business analysis;
- use functions to work with indexes in Excel in business analysis;
- use Excel's search and output functions in business analysis;
- to check the data format when creating summary tables and dynamic charts;
- configure data arrays to develop PivotTables and PivotCharts;
- develop summary tables and adjust them in accordance with the tasks of business analysis;
- develop dynamic charts and adjust them according to the tasks of business analysis.

**Acquisition of competencies:**

**General competencies:**

GC 3 Ability to abstract thinking, analysis, synthesis.

**Special (professional, subject) competencies:**

SC 2 Ability to analyze the results of the organization, compare them with the factors of external and internal environment.

SC 12 Ability to analyze and structure the problems of the organization, to form sound decisions.

### 3. Program and structure of the discipline “Business-analysis”

| Titles of content modules  | Weeks      | Number of hours |           |           |           |                 |           |          |          |
|--|------------|-----------------|-----------|-----------|-----------|-----------------|-----------|----------|----------|
|  |            | Full-time study |           |           |           | Part-time study |           |          |          |
|  |            | total           | including |           |           | total           | including |          |          |
| l  | p          |                 | ind.      | l         | p         |                 | ind.      |          |          |
| 1  | 2          | 3               | 4         | 5         | 6         | 7               | 8         | 9        | 10       |
| <b>Module 1. INTRODUCTION TO EXCEL. FORMATTING AND ADJUSTING</b>                           |            |                 |           |           |           |                 |           |          |          |
| Topic 1. Business-analysis on behalf of BABOK (Business Analysis Body of Knowledge)        | 1          | 6               | 2         | 0         | 4         | -               | -         | -        | -        |
| Topic 2. Conditional formatting and business-analysis tasks                                | 1,2        | 8               | 2         | 2         | 4         | -               | -         | -        | -        |
| Topic 3. Work with big data-sheets   | 2,3        | 8               | 2         | 2         | 4         | -               | -         | -        | -        |
| Topic 4. Professional forms. User interface. Buttons and drop-down menus.                  | 3,4        | 8               | 2         | 2         | 4         |                 |           |          |          |
| <b>TOTAL FOR MODULE 1</b>  | <b>3,5</b> | <b>30</b>       | <b>8</b>  | <b>6</b>  | <b>16</b> | <b>-</b>        | <b>-</b>  | <b>-</b> | <b>-</b> |
| <b>Module 2. WORKING WITH MACROS AND USING VBA</b>   |            |                 |           |           |           |                 |           |          |          |
| Topic 5. Key tasks of business analysis and their solution using macros and VBA            | 4,5        | 8               | 2         | 2         | 4         | -               | -         | -        | -        |
| Topic 6. Input and output of data with changing values to solve business analysis problems | 5,6        | 9               | 2         | 2         | 5         | -               | -         | -        | -        |
| Topic 7. Working with data sets and programming cycles in business analysis                | 6,7,8      | 13              | 4         | 4         | 5         | -               | -         | -        | -        |
| Topic 8. User interface and data filtering as you type                                     | 8,9        | 11              | 2         | 4         | 5         | -               | -         | -        | -        |
| <b>TOTAL FOR MODULE 2</b>  | <b>5,5</b> | <b>41</b>       | <b>10</b> | <b>12</b> | <b>19</b> | <b>-</b>        | <b>-</b>  | <b>-</b> | <b>-</b> |
| <b>Module 3. USING EXCEL FUNCTIONS TO SOLVE BUSINESS ANALYSIS TASKS</b>                    |            |                 |           |           |           |                 |           |          |          |
| Topic 9. Logical functions of Excel in business analysis                                   | 10         | 8               | 2         | 2         | 4         |                 |           |          |          |
| Topic 10. Functions for working with indexes of Excel in business analysis                 | 11         | 8               | 2         | 2         | 4         |                 |           |          |          |
| Topic 11. Functions of search and output of data of Excel in                               | 12         | 8               | 2         | 2         | 4         |                 |           |          |          |

|  |            |            |           |           |           |          |          |          |          |
|--|------------|------------|-----------|-----------|-----------|----------|----------|----------|----------|
| business analysis  |            |            |           |           |           |          |          |          |          |
| <b>TOTAL FOR MODULE 3</b>  | <b>3,5</b> | <b>24</b>  | <b>6</b>  | <b>6</b>  | <b>12</b> |          |          |          |          |
| <b>Module 4. PIVOT TABLES AND DYNAMIC CHARTS</b>   |            |            |           |           |           |          |          |          |          |
| Topic 12. Creating and using PivotTables to solve business analysis problems                                   | 13         | 8          | 2         | 2         | 4         |          |          |          |          |
| Topic 13. Creating and using dynamic charts to solve business analysis problems                                | 14         | 8          | 2         | 2         | 4         |          |          |          |          |
| Topic 14. Alternative ways to create summary tables and dynamic charts when solving business analysis problems | 15         | 9          | 2         | 2         | 5         |          |          |          |          |
| <b>TOTAL FOR MODULE 4</b>  | <b>3</b>   | <b>25</b>  | <b>6</b>  | <b>6</b>  | <b>13</b> |          |          |          |          |
| Exam   | 16         |            |           |           |           |          |          |          |          |
| <b>OVERALL TOTAL</b>   | <b>16</b>  | <b>120</b> | <b>30</b> | <b>30</b> | <b>60</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> |

#### 4. Topics of practical classes

| №             | Topic  | Hours     |
|---------------|--|-----------|
| 1             | Topic 2. Conditional formatting and business-analysis tasks  | 2         |
| 2             | Topic 3. Work with big data-sheets   | 2         |
| 3             | Topic 4. Professional forms. User interface. Buttons and drop-down menus.                                      | 2         |
| 4             | Topic 5. Key tasks of business analysis and their solution using macros and VBA                                | 2         |
| 5             | Topic 6. Input and output of data with changing values to solve business analysis problems                     | 2         |
| 6             | Topic 7. Working with data sets and programming cycles in business analysis                                    | 4         |
| 7             | Topic 8. User interface and data filtering as you type   | 4         |
| 8             | Topic 9. Logical functions of Excel in business analysis   | 2         |
| 9             | Topic 10. Functions for working with indexes of Excel in business analysis                                     | 2         |
| 10            | Topic 11. Functions of search and output of data of Excel in business analysis                                 | 2         |
| 11            | Topic 12. Creating and using PivotTables to solve business analysis problems                                   | 2         |
| 12            | Topic 13. Creating and using dynamic charts to solve business analysis problems                                | 2         |
| 13            | Topic 14. Alternative ways to create summary tables and dynamic charts when solving business analysis problems | 2         |
| <b>Total:</b> |  | <b>30</b> |

## **5. Test questions, sets of tests to determine the level of knowledge acquisition by students**

### **Questions**

1. Excel VLOOKUP Function Syntax.
2. Rules, Common Mistakes and Troubleshooting while using VLOOKUP function.
3. Excel VLOOKUP Approximate Match Formula.
4. Excel VLOOKUP approximate match formula example.
5. Excel VLOOKUP with Dynamic Column Reference.
6. VLOOKUP using COLUMNS Function Explained.
7. Alternative to using COLUMNS is the MATCH function while using VLOOKUP function.
8. Excel VLOOKUP to the Left Using CHOOSE.
9. Excel VLOOKUP Multiple Values Formula.
10. VLOOKUP Multiple Criteria.
11. What are Google Sheets macros?
12. Why use macros in Google Sheets?
13. Steps to Record Your First Macro.
14. Take a look at the code of the Google Sheets macro.
15. Examples of Google Sheets macros Conclusion.
16. Convert all formulas to values in the current worksheet MACROS.
17. Convert all formulas to values throughout the Google Sheet MACROS.
18. Sort all sheets in a Google Sheet alphabetically MACROS.
19. Show all rows and columns in the current sheet MACROS.
20. Show all rows and columns in the whole Google Sheet MACROS.
21. Set a specific tab color for all sheets MACROS.
22. Remove all tab colors from all sheets MACROS.
23. Hide all sheets except active MACROS.
24. Show all hidden sheets in one click MACROS.
25. Reset filters MACROS.
26. What is dashboard?
27. Planning your dashboard.
28. Good Dashboard Design.
29. Excel skills required to build Dashboard.
30. The right way to prepare data for quick building and updating the dashboard.

### **Tests**

- 1) Which of the following is the shortcut combination for launching dialogue box?
  - a) Pressing Shift+F3 will launch the Function Arguments dialogue box.

- b) Pressing Ctrl+a after typing the name of the formula will launch the Function Arguments dialogue box.
- c) Pressing Ctrl+f after typing the name of the formula will launch the Function Arguments dialogue box.
- d) Pressing Ctrl+Shift+Enter after typing the name of the formula will launch the Function Arguments dialogue box.

2) Which of the following options best describe what the shortcut combination Shift+F3 accomplishes?

- a) It inserts the Autosum formula into a selected cell.
- b) It launches the Function Arguments dialogue box.
- c) It launches the Insert Function dialogue box.
- d) It launches the Select Formula dialogue box.

3) Lauren needs to create a very complex nested formula. Unfortunately, she does not have all the data that is going to be included in the arguments yet. Is there a way for her to insert the formula with the arguments automatically displayed as placeholders?

- a) After typing the name of the formula, for example =IF(, if she presses Ctrl+Shift+a, the formula arguments will be inserted in the cell.
- b) After typing the name of the formula, for example =IF(, if she presses Ctr+Shift+F, the formula arguments will be inserted in the cell.
- c) After typing the name of the formula, for example =IF(, if she presses Ctrl+a, the formula arguments will be inserted in the cell.
- d) This is not possible. She will have to leave the cell blank until she has all the data for all the arguments in her formula.

4) To ensure a cell reference becomes absolute and does not change when more rows or columns are added or if the cell containing the referenced value is moved, you need to:

- a) Type the cell reference and press Ctrl+Shift+Enter to make the reference absolute.
- b) Type the cell reference and press Ctrl+a to make the reference absolute.
- c) Type the cell reference and press Ctrl+Shift+F4 to make the reference absolute.
- d) Type the cell reference and press F4 to make the reference absolute.

5) What will happen to all your worksheets in your current open workbook when you press F9?

- a) The workbook will automatically be saved.
- b) All formulas will automatically be calculated.
- c) All cell references will become absolute.
- d) None of the above options are correct.



6) Stacey has taken over a worksheet from a colleague. She wants to quickly see all the formulas that are present in the worksheet to better understand the data. Which shortcut combination can she use to achieve this?

- a) Pressing Ctrl+` (grave symbol) will display all formulas instead of their values.
- b) Pressing Ctrl+Shift+' (apostrophe) will display all formulas instead of their values.
- c) Pressing Ctrl+Shift+a will display all formulas instead of their values.
- d) Pressing Shift+' (apostrophe) will display all formulas instead of their values.

7) Which of the following shortcuts allow you to calculate the formulas and functions only in the worksheet that you are currently working in (i.e. the active sheet)?

- a) Pressing Ctrl+F9 will calculate only the active worksheet.
- b) Pressing Shift+F9 will calculate only the active worksheet.
- c) Pressing Ctrl+Shift+F9 will calculate only the active worksheet.
- d) Pressing F9 will calculate only the active worksheet.

8) What is a nested IF statement?

- a) It is an IF statement that has been inserted into a cell.
- b) It is an IF statement that has been inserted into a graphic such as a shape.
- c) It is an IF statement that has been inserted into another IF statement.
- d) None of the options listed above are correct.

9) Which of the following is NOT an argument you will find in a SUMIFs function?

- a) sum\_range
- b) criteria\_range1
- c) value\_if\_true
- d) criteria2

10) Which of the following statements are TRUE?

- a) You use SUMIFs to count cells based on specified ranges and criteria.
- b) You have to first use an IF statement in a worksheet before you can use SUMIFs or COUNTIFs.
- c) You use COUNTIFs to count the number of cells specified by a given set of conditions or criteria.
- d) None of the options listed above are correct.

11) Which of the following nested IF functions are CORRECT?

- a) =IF(B5="Shirt",IF(A5="large",20,10),"Unavailable")
- b) =IFS(B5="Shirt",IF(A5="large",20,10),"Unavailable")
- c) =IF(B5="Shirt",=IF(A5="large",20,10),"Unavailable")
- d) =IF:(B5="Shirt",IF(A5="large",20,10),"Unavailable")

12) Which of the following is the correct argument(s)/syntax for the COUNTIFs function?

- a) =COUNT(IFs(criteria\_range, criteria1, criteria\_range2, criteria2)
- b) COUNTIFs=(criteria\_range, criteria1, criteria\_range2, criteria2)
- c) =COUNTIFs(criteria\_range, criteria1, criteria\_range2, criteria2)
- d) =COUNTIFs(criteria1, criteria2, criteria3)

13) Paul entered the following formula into a cell but it keeps popping up with an error. The formula he entered is:

=IF(B9>500,IF(F9="Yes",B9\*B20,B9\*B21)"Empty"). Which of the following is the corrected version?

- a) =IF(B9>500,IF(F9="Yes",B9\*B20,B9\*B21),"Empty") – the comma before the last argument was missing.
- b) =IF(B9>500,IF(F9,="Yes",B9\*B20,B9\*B21)"Empty") – the comma after F9 in the nested IF was missing.
- c) =IF(B9>500,=IF(F9="Yes",B9\*B20,B9\*B21)"Empty") – the equal sign before the nested IF was missing.
- d) None of the options listed above are correct.

14) James needs to add together various payment amounts in a worksheet depending on three different criteria. Which function would be the most efficient for him to use?

- a) COUNTIFs
- b) SUMIFs
- c) SUMIF
- d) None of the above.

15) Which of the formulas below contain the correct syntax (formula arguments) for the VLOOKUP function?

- a) =VLOOKUP(lookup\_value, table\_array, col\_index\_num, range\_lookup)
- b) =VLOOKUP(table\_array, lookup\_value, col\_index\_num, range\_lookup)
- c) =VLOOKUP(lookup\_value, table\_array, col\_index\_num, value)
- d) =VLOOKUP(lookup\_value, table\_array, col\_index\_num, range\_lookup)

16) In a VLOOKUP formula, what does the argument column\_index\_number mean?

- a) This is the secret INDEX number that each column in an Excel worksheet has.
- b) This is the number of the column within the selected table\_array where the lookup result is located.
- c) This is a numerical representation of the letters at the top of a worksheet. For example, A = 1, B = 2, etc.
- d) This is numbers you assign to columns in your worksheet.

- 17) Which of the following is NOT possible with VLOOKUP?
- a) You can lookup values located in a different worksheet.
  - b) You can lookup values located in a column to the right of the column that contains the lookup value.
  - c) You can lookup values located in a column to the left of the column that contains the lookup value.
  - d) You can lookup values such as text, numbers or characters.
- 18) What type of result does the MATCH function, when used on its own, return?
- a) It returns the lookup value located in a specific location.
  - b) It returns a value that is the same as the lookup value.
  - c) It returns the cell reference of the lookup value.
  - d) It returns the relative position of a lookup value, either as a row or column number, within the selected array.
- 19) Which of the following is the name of the function that changes text into all capital letters?
- a) The NUMCAP function
  - b) The UPPER function.
  - c) The ALLCAP function.
  - d) The CAPITALIZE function.
- 20) Russel's colleague, Pete, wrote the following formula to identify the film Yalitza Aparicio was nominated for:  
=HLOOKUP("Film", A10:D15, 2)
- Russel's boss wants him to improve it, such that it would work for any actress's name typed into cell B9. Which formula could Russel use?
- a) =HLOOKUP("Film", A10:D15, MATCH(B9, A10:A15, 0))
  - b) =VLOOKUP(B1, A10:D15, MATCH("Film", A10:D10, 0), FALSE)
  - c) =HLOOKUP("Film", A11:D15, INDEX(B10:B15, B9))
  - d) Either a or b

### **Practical task**

Open the file contained within the folder name shown above.  
We want to calculate the bulk buy discounts:

|    | A   | B             | C               | D                           | E                        | F                 |
|----|---|---------------|-----------------|-----------------------------|--------------------------|-------------------|
| 1  | <b>Cheeky Charlie's School Tuckbox Sales - Class 4A Sales</b> |               |                 |                             |                          |                   |
| 2  |   |               |                 |                             |                          |                   |
| 3  | <b>Item</b>   | <b>Price</b>  | <b>Quantity</b> | <b>Cost Before Discount</b> | <b>Bulk Buy Discount</b> | <b>Class Cost</b> |
| 4  | Mars Bars   | £1.00         | 8               | £8.00                       |                          | £8.00             |
| 5  | Twix  | £1.00         | 5               | £5.00                       |                          | £5.00             |
| 6  | Bounty Bar  | £1.00         | 6               | £6.00                       |                          | £6.00             |
| 7  | Gazillions Tub  | £1.50         | 12              | £18.00                      |                          | £18.00            |
| 8  | Maltesers   | £1.00         | 1               | £1.00                       |                          | £1.00             |
| 9  | Walkers Crisps  | £0.75         | 15              | £11.25                      |                          | £11.25            |
| 10 | Salted Peanuts  | £1.50         | 8               | £12.00                      |                          | £12.00            |
| 11 | Chewing Gum   | £0.75         | 5               | £3.75                       |                          | £3.75             |
| 12 | Nutella Bar   | £2.00         | 4               | £8.00                       |                          | £8.00             |
| 13 | Polo Mints  | £0.50         | 4               | £2.00                       |                          | £2.00             |
| 14 | Muesli Bar  | £2.00         | 1               | £2.00                       |                          | £2.00             |
| 15 | Maths Test Answers  | £5.00         | 25              | £125.00                     |                          | £125.00           |
| 16 | <b>CLASS TOTALS</b>   | <b>£18.00</b> | <b>94</b>       |                             | <b>£0.00</b>             | <b>£202.00</b>    |

In cell E4, create a nested =IF that calculates the correct bulk buy discount percentage. Use this to help you:

If quantity >=20 the customer should get 10%

If quantity >=10 the customer should get 5%

Anything less the customer should get no discount

Remember the nested =IF function has the following structure:

=IF(Condition1, True1, False1, IF(Condition2, True2, False2))

Lower the order thresholds and change the discount percentages to check that your formula works:

|    | A   | B             | C               | D                           | E                        | F                 | G                      | H                | I |
|----|---|---------------|-----------------|-----------------------------|--------------------------|-------------------|------------------------|------------------|---|
| 1  | <b>Cheeky Charlie's School Tuckbox Sales - Class 4A Sales</b> |               |                 |                             |                          |                   |                        |                  |   |
| 2  |   |               |                 |                             |                          |                   |                        |                  |   |
| 3  | <b>Item</b>   | <b>Price</b>  | <b>Quantity</b> | <b>Cost Before Discount</b> | <b>Bulk Buy Discount</b> | <b>Class Cost</b> |                        |                  |   |
| 4  | Mars Bars   | £1.00         | 8               | £8.00                       | £0.40                    | £7.60             | Discounts for Bulk Buy |                  |   |
| 5  | Twix  | £1.00         | 5               | £5.00                       | £0.00                    | £5.00             |                        |                  |   |
| 6  | Bounty Bar  | £1.00         | 6               | £6.00                       | £0.30                    | £5.70             | If buy >= 20           | get 10% discount |   |
| 7  | Gazillions Tub  | £1.50         | 12              | £18.00                      | £0.90                    | £17.10            | If buy >=10            | get 5% discount  |   |
| 8  | Maltesers   | £1.00         | 1               | £1.00                       | £0.00                    | £1.00             | Anything less          | no discount      |   |
| 9  | Walkers Crisps  | £0.75         | 15              | £11.25                      | £1.13                    | £10.13            |                        |                  |   |
| 10 | Salted Peanuts  | £1.50         | 8               | £12.00                      | £0.60                    | £11.40            | Threshold1             | 15               |   |
| 11 | Chewing Gum   | £0.75         | 5               | £3.75                       | £0.00                    | £3.75             | Threshold2             | 6                |   |
| 12 | Dried Mango Flakes  | £2.00         | 4               | £8.00                       | £0.00                    | £8.00             | High Discount          | 10%              |   |
| 13 | Polo Mints  | £0.50         | 4               | £2.00                       | £0.00                    | £2.00             | Low Discount           | 5%               |   |
| 14 | Muesli Bar  | £1.00         | 1               | £1.00                       | £0.00                    | £1.00             |                        |                  |   |
| 15 | Maths Test Answers  | £5.00         | 25              | £125.00                     | £12.50                   | £112.50           |                        |                  |   |
| 16 | <b>CLASS TOTALS</b>   | <b>£17.00</b> | <b>94</b>       |                             | <b>£15.83</b>            | <b>£185.18</b>    |                        |                  |   |

Use Save As... to save the file in your own new Excel work folder.

## 6. TASKS FOR FINAL CONTROL

### Example of a ticket for the exam

| <b>National University of Life and Environmental Sciences of Ukraine</b> |  |  |  |
|--|--|--|--|
| <b>EL «Bachelor»</b>   | <b>Faculty of Agrarian Management<br/>Department AM &amp; FEA<br/>2022 – 2023 ed. year</b> | <b>EXAMINING<br/>TICKET 1<br/>for the discipline<br/>"Business-analysis"<br/>(English language discipline)</b> | <b>Approved<br/>Head of<br/>department</b>                           |
|  |  |  | (signature)<br><b>Vitalii<br/>LUTSIAK</b><br>_____<br><b>2022 y.</b> |
| <i>Exam question<br/>(10 points each maximum)</i>                        |  |  |  |
| <b>1. Basic principles of the BABOK</b>                                  |  |  |  |
| <b>2. Function VLOOKUP (arguments, task, example)</b>                    |  |  |  |

Test

Practical task

## 7. METHODS OF STUDYING

To activate the process of teaching students in the study of discipline, the following educational technologies and tools are used:

- the lectures set out the clearly structured material; the students focus on problematic issues; specific examples of practical application of the acquired knowledge are given; turn to the foreign experience of solving certain problems; students are encouraged to critically perceive new material instead of passive note-taking; visual materials, videos, diagrams, tables, models, graphs are used; the technical means of teaching are used: personal computers with licensed software, a big LCD monitor, videos, slides, etc.; students are highly recommended to have own laptop with Windows and Microsoft Excel installed.

- in the practical lessons various educational technologies are introduced: discussion of problems, solving tasks using Microsoft Excel; problems solution; brain storming; case methods; presentations; analysis of a specific situation; work in small groups; role playing and business games; banks of visual accompaniment; written control of knowledge; individual and group polls; cross-checking of tasks with the following argumentation of the submitted evaluation, etc.

Mandatory elements for activating students' educational work are the clear control of attending classes by students, encouraging learning activity, and fair differentiation of grades.

## **8. Forms of control**

Modules and rating system of organization of education and control of knowledge in discipline was developed to accelerate auditorium and self-educational work within intersession period through concretization of the number of educational materials, its differentiation according to complexity and importance, to stimulate systematic work of students during the semester, to raise the level of their practical work.

### **Sharing the discipline on modules and their general content**

Educational discipline is studied by bachelors of the Faculty of Agrarian Management during the semester.

Discipline is divided into 4 modules, which comprise lectures' material, practical work in proper theme. The level of students' knowledge and understanding of proper modules will be estimated according to results of students' participation in seminars, performing of practical works as well as control works. The final control is a pretest.

Semester calculated rating is 100 points. According to recommended correlation the rating in educational work is 70 points, in attestation – 30 points.

Participation in seminars, performing each practical work can be estimated differentially according to the level of their complexity. Penalties will be used for missed lectures, practical work and seminars.

### **Determination of students' rating and estimation of his knowledge**

The main mark for the semester can be calculated according to general rating  $R_{\text{ДИС}}$ , which comprise the sum of educational rating ( $R_{\text{HP}}$ ) and attestation (pretest) ( $R_{\text{ЗАЛ}}$ ). The system of penalties ( $R_{\text{ШТР}}$ ) can be used during determination of the educational students' rating, in particular for each missed lectures or practical work or seminar – minus 2,1 points (up to 5 % from  $R_{\text{HP}}$ ). The student can receive additional amount of points ( $R_{\text{ДР}}$ ) for performance of unplanned work (production of educational books etc): general amount of points cannot exceed 10,0 (10% from maximal amount of points for the discipline).

If the students' rating below then 35 points (50% from  $R_{\text{HP}}$ ), he is not allowed to do attestation and obliged to maintain his rating until the beginning of exam or pretest session. Students, who have received 35,7 – 59,0 points during the semester (51% from  $R_{\text{HP}}$  - 59% from  $R_{\text{ДИС}}$ ), allowed to pass pretest. Other students will receive note “passed” into the proper cell of exam and pretest book. Pretest can be recognized as “passed” if student has received on the pretest such amount of points, which in total with  $R_{\text{HP}}$  will be at list 60,0 (60% from  $R_{\text{ДИС}}$ ).

### **The procedure of implementation**

Module and rating system of education and control of education and control of students' knowledge will be implemented into the educational process.

Before beginning of the studying of the discipline students have to be familiarize with mentioned Provision, quantitative indicators of each work estimation and discipline at all, terms of control of knowledge of separate modules. Lecturer should inform students concerning their rating regularly during the semester.

Results of knowledge control should be noted in the proper sheet.

### Rating estimation of modules

| Term of education, weeks | Number of modules | Duration of educational process, hours | Credits ECTS | Rating mark of module, points |     |      |
|--------------------------|-------------------|--|--------------|-------------------------------|-----|------|
|                          |                   |  |              | min                           | max | fact |
| 1-4                      | 1                 | 30                                     | 1            | 60                            | 100 | 1    |
| 4-8                      | 2                 | 41                                     | 1,4          | 60                            | 100 | 1,5  |
| 9-12                     | 3                 | 24                                     | 0,8          | 60                            | 100 | 0,8  |
| 13-16                    | 4                 | 25                                     | 0,8          | 60                            | 100 | 0,8  |
| Total 16                 | 4                 | 120                                    | 4            | 60                            | 100 | 4    |

$$R_{\text{дис}} = R_{\text{НР}} = 0,3R_{\text{ат}}$$

$$R_{\text{НР}} = (0,7 (R_{13\text{М}} \times 1 + R_{23\text{М}} \times 1)) : 2 + R_{\text{др}} - R_{\text{штр}}$$

### General rating mark in discipline

| Given Mark (National System) | Mark (ECTS) | Rating in discipline, points |
|------------------------------|-------------|------------------------------|
| Excellent                    | A           | 90-100                       |
| Good                         | B           | 82-89                        |
|                              | C           | 75-81                        |
|                              | D           | 66-74                        |
| Satisfactory                 | E           | 60-65                        |
|                              | FX          | 35-59                        |
| Not-Satisfactory             | F           | 01-34                        |

## 9. Methodical providing

This work program of academic discipline, a summary of lectures, plans of seminars and practical classes, tasks for independent work, express control, tasks for final control.

Lutsiak V.V. (2020). Business-analysis in Excel. Elearn Course. Retrieved from <https://elearn.nubip.edu.ua/course/view.php?id=4298>

## 10. Recommended Literature

### Basic

1. Карлберг К. Бизнес-анализ с использованием Excel. Москва: Диалектика- Вильямс, 2020. 576 с.

2. Карлберг К. Бизнес-анализ с использованием Microsoft Excel. Москва: Вильямс, 2002. 464 с.

3. Сидорова А. В., Біленко Д. В., Буркіна Н. В. Бізнес-аналітика. Навчально-методичний посібник. Вінниця: ДонНУ, 2019. 105 с.

4. Фоусет Т., Провост Ф. К. Data Science для бізнесу. Як збирати, аналізувати і використовувати дані. Наш формат, 2019. 400 с.

5. International Institute of Business Analysis. (2015). A guide to the business analysis body of knowledge. Toronto, Ontario, Canada. Retrieved from <https://cutt.ly/ZJxw7Fj>

6. International Institute of Business Analysis. (2009). Agile Extension to the BABOK., Toronto, Ontario, Canada.

7. Yayici E. (2015). Business Analysis Methodology Book: Business Analyst's Guide to Requirements Analysis, Lean UX Design and Project Management at Lean Enterprises and Lean Startups. Emrah

8. Marr B. (2016). Key Business Analytics - The 60+ business analysis tools every manager needs to turn data into insights: - better understand customers, identify cost savings and growth opportunities. FT Press.

#### **Internet resources**

31. Бізнес-аналітика в Excel и службах Excel (SharePoint Server 2013). (n.d.). Retrieved from <https://cutt.ly/dJz5LqO>

32. Blog – TeachExcel. (2021, December). Retrieved from <https://blog.teachexcel.com/>

33. Wise Owl Training. (n.d.). Retrieved from <https://www.wiseowl.co.uk/excel>