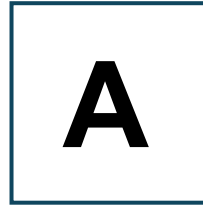




Co-funded by
the European Union

Digital Competency and Problem-Solving: Skills for Communication and Collaboration

Module 4: Ethical and Responsible Use of Digital Sources



Citation and Academic Integrity





What is academic integrity?

Academic integrity is an ethical standard in teaching and research that implies honesty, transparency, and respect for intellectual property.

Basic principles:

Authorship: indication of the real authors of ideas, theories, analytical models, and data.

Transparency: clear explanation of sources of information, statistical methods, and data sources.

Respect for authors: recognition of the contributions of other researchers, including through proper citation.

In economic science, academic integrity acquires special importance due to:

Many digital sources.

The use of analytical developments and data from various researchers.

The ability to manipulate statistical indicators.



Citation of Information in Educational works

Citation is the process of indicating the source from which information is not generally known.

What needs to be cited:

Theoretical models (Solow model, Laffer curve).

Author's interpretations (publications of Nobel laureates).

Data: GDP, inflation, export statistics, etc.

How to correctly provide data in the work:

Source: author, work title, year, number of pages.

Context: How exactly was the theory/data used in their research.

Format:

APA: Smith, A. (2012). Wealth of Nations. Wordsworth Editions.

DSTU 8302:2015: Studies on the Nature and Causes of the Wealth of Peoples: in 2 vols. / Adam Smith. Kyiv: Nauk. Dumka, 2001. T. 1. 528 p.



Do not forget, even if you reformulate the idea in your own words, the source should still be indicated.



Sourcing Tools

Digital tools make it easier to find, save, and design sources.

Google Scholar is an academic search engine for scientific articles.

Can quickly get links in Harvard, APA, MLA, and Chicago styles

Example: search for "Keynes General Theory", quote in APA:

Keynes, J. M. (1936). The General Theory of Employment, Interest and Money.

Tips are:

Create a separate folder for each study.

Use tags for quick searches.

Regularly check that the saved source has all the fields (author, year, title).

Use online services to correctly design bibliographic references according to academic requirements (for example, Grafiati).

B

Approaches to Academic Integrity Testing





Plagiarism in Analytical and Graphic Works

Plagiarism is the appropriation of other people's ideas, texts, data, or visual content without proper reference.

Plagiarism in educational and scientific works is:

- Copying formulas, tables, and graphs from other works without reference to them.

- Using other people's calculations or models as your own.

- Translation of foreign language sources without attribution.

-  Even if the appearance of the figure is changed, its essence remains the author's idea, so the source must be indicated.

Example of a violation:

Graph of GDP dynamics taken from the IMF or WB without a signature and source is plagiarism.



Anti-plagiarism

Systems: StrikePlagiarism

StrikePlagiarism.com is a platform for identifying similarities in academic papers.

How it works:

Compares the text with open sources, databases, and student works.

Analyzes not only verbatim coincidences but also paraphrased fragments.

What is considered in the report?

Total percentage of matches.

References to the sources from which the text is taken.

Technical or intentional editing indicators.

📌 The permissible level of similarity depends on the HEI, but usually up to 20-25%, subject to correct citation.



Fair use Of Information and Citations

Fair use allows you to use part of the author's work without his consent, subject to certain conditions.

When it is allowed:

For educational, scientific, and research purposes.

If the use is not large-scale.

If the author and source are clearly indicated.

How to cite correctly:

"Ukraine's GDP growth in 2023 was 5.3%" (World Bank, 2024).

Use of quotes:

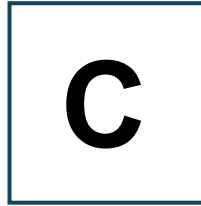
It should not exceed about 10-15% of the text.

It should be accompanied by its own analysis and not replace it.

You can't:

Create a work consisting only of quotes.

Pass off the adapted fragment as your own.



Transparency in the Application of Statistics



Ethical Use of Statistical Methods

Statistical methods must comply with:

Research objectives.

The nature of the sample.

Data availability.

Ethical principles:

The choice of method must be justified (for example, regression analysis instead of arithmetic mean, if the data shows a trend)

It is forbidden to adapt the technique to the desired result.

The results should be explained in the context of assumptions and accuracy limits.

An example of an unethical approach:

Intentional extraction of values from a sample without explanation results in a distortion of the conclusions.

Using of Official Sources

Authoritative sources of statistical information:

IMF (International Monetary Fund): macroeconomic forecasts, databases by country.

World Bank (World Bank): development indicators, analytical reports.

Service of State Ukraine: National Official Statistics.

Advantages of use:

High reliability and regularity of updates.

Standardization of data collection methodology.

Availability in CSV, Excel formats.

Recommendation:

Always check that the year, source, units, and method of data collection are specified in reports or presentations.

D

Prevention of Manipulation of Statistical Data



Typical Data Manipulations

Manipulation of statistical indicators can create the illusion of success or, conversely, a crisis.

Common examples:

1. Base Year Selection: Selecting a period with an abnormal value for a favorable comparison.

(e.g., GDP growth of +10% compared to the year of recession -12%)

2. Ignoring inflation: giving nominal values instead of real ones.

(e.g., "wage growth" without considering the depreciation of money)

3. Changing the scale of the graph: visual exaggeration of changes.

4. Change of context: hiding the factors that influenced the indicator.

📌 Such actions are a violation of academic integrity.

Examples of Misinterpretation of Indicators

Misinformation often occurs not in the data, but in its interpretation.

Typical mistakes:

1. Replacement of correlation with causality.

For example, an increase in defence spending does not automatically mean economic growth.

2. Interpretation of the index without understanding its structure.

For example, the Human Development Index does not reflect the unemployment rate.

3. Ignoring seasonality or external factors.

For example, a comparison of indicators without considering the COVID-2019 pandemic.

📌 It is important to clearly separate facts, assumptions, and analytical assessments.

Ethical Interpretation of Results

Ethical interpretation is an honest presentation of results with an explanation of their limitations.

Principles:

Transparency: Be clear about sources, methods, and limitation.

Reasonableness: Every conclusion must be based on data.

Balance: cite both positive and negative aspects.

Even negative results should be announced:

If inflation exceeds 20%, you should not embellish the conclusion with the words "generally positive dynamics".

 **Academic ethics is not only about preventing plagiarism, but also about good faith analytics.**

Main Results:

- ✦ Academic integrity is the basis of scientific activity, which requires transparency, respect for authorship and correct citation.
- ✦ Citation is mandatory even when paraphrasing. It is important to comply with the standards (APA, DSTU 8302:2015).
- ✦ Plagiarism is not only copying text, but also appropriating graphs, data, and ideas without reference to the source.
- ✦ Anti-plagiarism systems (like StrikePlagiarism) detect both verbatim and paraphrase borrowings. The permissible level of matches is up to 20-25%.
- ✦ Statistical methods should be used reasonably. Manipulation of data (scale of the graph, ignoring inflation, etc.) is a violation of ethics.
- ✦ Ethical interpretation is an honest explanation of results, taking into account constraints, context, and assumptions.
- ✦ The use of official sources (IMF, World Bank, State Statistics Service of Ukraine) increases the reliability of the study.