Academic integrity audit

Case guide and answer key · U.S. energy in 2024

A worked pre-submission review of a fictional campus energy assignment. All manuscripts were created with AI assistance and deliberately contain teaching errors in earlier versions. They are not student submissions or research publications. Read the answer key before relying on any statement.

Assignment and simulated process

A campus committee requests a short evidence-based energy policy note. The fictional instructor permits AI-generated search questions only, not AI-written analysis. The simulated record states that AI supplied search questions and the analysis in A/B P08. A/B P07 deny AI use. C replaces the passage and discloses prior assistance, but no instructor decision exists. This is fictional provenance, not evidence of independent human authorship.

How to use the materials

Read A and locate the eight seeded issues plus one correct control. Compare the text with the reports and source pages, complete your review log, then compare B (attribution revision) and C (evidence revision). C2 is the unchanged C with the citation filter enabled. Do not infer academic misconduct solely from report colors or the overall score.

Actual results · 27 November 2026

Run / report	Words	Indicator	Source URLs	Citation filter
A / 11922685	678	15.72%	20	OFF
B / 11922688	687	10.25%	17	OFF
C / 11922689	770	9.15%	17	OFF
C2 / 11922699	770	7.78%	17	ON

PDF settings: web search on; academic databases, AI search, personal storage search, Latin-character conversion and reference exclusion off. No whitelist is displayed. Organization storage and Add to storage are not recorded in the PDFs; their state has not been independently verified for this exercise. Report body text matches the frozen inputs after whitespace normalization and removal of report labels. The overall “Plagiarism” indicator is reported as shown, not a misconduct score.

Answer key: findings and repairs

Source IDs S1–S4 are listed on page 4. “None” in the report means no visible body highlight in that paragraph. It does not prove the paragraph is correct.

ID	Manual finding and source evidence	Repair / final status
E01 / P01	Unattributed verbatim reuse. S1, renewable production discussion.	Independent paraphrase with S1 credit. Repaired in B.
E02 / P02	Exact words cited without quotation marks. S2, consumption discussion.	Retain words, add quotation marks and locator. Repaired in B.
E03 / P03	Close paraphrase with citation. S3, historical coal discussion.	Recast from understanding; retain source credit. Repaired in B.
E04 / P04	Growth rate confused with share. S1, solar production growth of 25% year over year.	Correct statistic meaning: growth, not national share. Repaired in C.
E05 / P05	True statistic cited to irrelevant page. S3 opening: 82% fossil fuel share; S4 is grid balancing.	Replace citation with S3; distinguish source scope. Repaired in C.
E06 / P06	Table conclusion reverses values. S2: petroleum 35.3; natural gas 34.2 quads.	Petroleum exceeds natural gas by 1.1 quads. Repaired in C.
E07 / P07	False simulated AI declaration. Fictional process record: AI search questions and generated analysis.	Disclose actual simulated use. Disclosure corrected in C.
E08 / P08	Simulated unauthorized AI assistance. Fictional task permits search questions only; A/B analysis AI-written.	Replace analysis and disclose prior use; seek instructor decision. Text replaced in C; policy review open.
K01 / P09	Correct quotation (control). S4, Balancing section.	Retain quote and source credit. No repair needed.

Important: the P08 repair does not retroactively authorize the earlier simulated AI use. The instructor-review question remains open. The correct P09 quotation is retained in all versions.

Report observations and limits

ID	A	B	C	C2
E01	Red	None	None	None
E02	Yellow	Yellow	Yellow	Green
E03	Yellow	None	None	None
E04	None	None	None	None
E05	None	None	None	None
E06	None	None	None	None
E07	None	None	None	None
E08	None	None	None	None
K01	None	None	None	Green

A links P01–P03 to the corresponding EIA sources (report A source numbers 4, 5 and 9). P02 stays yellow after adding quotation marks with the filter off. C2 recognizes both P02 and P09 as citations, but P09 has no visible source-linked body match in A/B/C; the DOE source is not in the source list. Recognition of citation formatting is not proof of source discovery. The reported indicator falls by 1.37 percentage points when the filter is enabled; source lists and their percentages are unchanged.

Interpreting the numbers

B and C contain different amounts of text. The B indicator scaled only by the reported word counts gives 10.25 × 687 / 770 = 9.15% (rounded), the displayed C value. This is an illustrative calculation, not confirmation of the scoring algorithm or exact matched-word counts. Content corrections must be judged against evidence, not a lower indicator.

Scope and methodology

This worked case was selected for educational illustration after exploratory checks. The manuscript versions and review criteria were defined before checking this case. The results apply to this specific exercise, not a representative evaluation of detection accuracy. No general detection rate or completeness claim follows from these results.

Primary sources

The intentionally erroneous statements in A and B are not assertions by the cited agencies. The exercise uses simplified author–date citations with descriptive locators. Source information is retained in the original manuscripts.

S1 — U.S. Energy Information Administration (9 June 2025). In 2024, the United States produced more energy than ever before.

https://www.eia.gov/Todayinenergy/detail.php?id=65445

Renewable production discussion; record output and solar growth.

S2 — U.S. Energy Information Administration (20 June 2025). U.S. primary energy production, consumption, and exports increased in 2024.

https://www.eia.gov/Todayinenergy/detail.php?id=65524

Consumption discussion; 94.2 vs 99.0 quads and petroleum/natural gas totals.

S3 — U.S. Energy Information Administration (2 July 2025). How has U.S. energy use changed since 1776?

https://www.eia.gov/todayinenergy/detail.php?id=65644

Opening and historical discussions; 82% fossil share and earlier uses of coal.

S4 — U.S. Department of Energy (n.d.). Solar Grid Planning and Operation Basics.

https://www.energy.gov/cmei/systems/solar-grid-planning-and-operation-basics

Balancing section; accessed 27 November 2026.

Reuse and attribution

Agency information is generally reusable under the agencies' published terms; no third-party images or logos are included. Source text and the teaching author's adaptations are distinguished in the manuscripts. No agency endorsement is implied. Review the applicable rights before redistribution.

EIA reuse policy · DOE web policies