

# Cornell Guided Notes

Principles of Biomedical Technology (Principles of Biomedical Science) | 2026-12-15

Name

Period

Date

Lesson

## Lesson focus

Prototype evaluation CER

## Key words and questions

## Prepared details and student notes

**Essential question**  
**What is today's target?**

Students write a CER evaluating prototype performance and proposing a design iteration.  
Big idea: Evaluating a prototype honestly, including its failures, is what drives the next iteration: a CER that only reports success is incomplete.

**My notes, examples, and questions**

**Key words**  
**What vocabulary unlocks the lesson?**

- prototype
- constraint
- criterion
- CAD
- iteration
- stent
- prevention
- test plan

**My notes, examples, and questions**

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## Cornell Notes - Continued

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**Must-know ideas**  
**What should I understand by the end?**

- A prototype evaluation CER claim states whether the device met the specified design goal, not whether it was 'good.'
- Trial data is the primary evidence: average performance and trial-to-trial variability both belong in the evidence section.
- An iteration proposal changes one variable based on the data; it should predict what the next trial result will be.

**My notes, examples, and questions**

**Process notes**  
**What happens during class?**

- 0-8 min: Review Wednesday data table: confirm average performance and trial variability.
- 8-20 min: Write the claim: one sentence stating whether the prototype met its design goal.
- 20-42 min: Write evidence: cite average trial data, controlled variables, and one variability observation.
- 42-58 min: Write reasoning: link data to design strengths and flaws.
- 58-70 min: Write the iteration proposal (one variable to change, predicted outcome) and test-data limitations.
- 70-80 min: Peer review: confirm claim addresses the design goal, data is cited specifically, iteration predicts a result.

**My notes, examples, and questions**

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#### Steps and evidence What do I do and turn in?

- State a claim about whether the prototype met its design goal.
- Cite trial data and variable control as evidence.
- Explain reasoning that links the data to the design's strengths and flaws.
- Propose one iteration to improve performance.
- Identify assumptions and limitations in the test data.

Evidence: CER - CER stating whether the prototype met its design goal, citing averaged trial data and variable-control evidence, explaining design strengths and flaws, proposing a specific iteration with a predicted result, and stating test-data limitations.

#### My notes, examples, and questions

#### Checks for understanding How do I know I got it?

- Write a CER evaluating prototype performance with trial data.
- Propose a specific iteration and state one limitation.

#### My notes, examples, and questions

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**Lab or safety notes**  
**What must I handle carefully?**

Supplies:

- Prototype materials such as tubing, mesh, or modeling clay
- Ruler or calipers
- Stopwatch or timer
- Pressure or flow test setup
- Safety goggles
- Data recording sheet
- Design notebook

**My notes, examples, and questions**

## Summary

Today's lesson focused on Prototype evaluation CER. The main target was: Students write a CER evaluating prototype performance and proposing a design iteration. The evidence of learning is CER: CER stating whether the prototype met its design goal, citing averaged trial data and variable-control evidence, explaining design strengths and flaws, proposing a specific iteration with a predicted result, and stating test-data limitations.. In my own words, the most important idea from today is:

**My summary**

## My final question or connection