

Note Taking Template

Cornell layout + three metacognitive checkpoints. One page per lecture.

Course _____

Date _____

Topic _____

1

Plan & connect

**BEFORE
CLASS
(2 min)**

What do I know? What does it build on from this knowledge? What question(s) do I have?

3

Cues & questions

AFTER CLASS (5 min)

Turn the notes into a **question you could be asked**. Cover the Notes & answer from these cues.

What **type** of problem is this?

Which **method** fits, or not?

Where did I get **lost**? Is it **new**?

2

Notes

DURING CLASS

Main points, definitions, governing equations with units & key steps of the lecture. Mark anything that you don't understand.

4

Summary & next action: what matters, what is still unclear & dated task(s)

**AFTER
CLASS
(3-5 min)**

Self-quiz: at 24 h & 3 days (10 min each) cover the Notes and answer the Cues; Weekly repeat with all notes (30 min). Flag any misses & ask for help (i.e., office hours, PA, ECOR Tutors) if missed twice.

EXMAPLE
Note Taking Template

Cornell layout + three metacognitive checkpoints. One page per lecture.

Course ECOR 1033 – Statics
Date Sept 24 – Lecture 6
Topic Rigid-body equilibrium

1 BEFORE CLASS (2 min)	Plan & connect What do I know? What does it build on from this knowledge? What question(s) do I have? <i>Builds on particle equilibrium ($\Sigma F = 0$). New: moments, so $\Sigma M = 0$ too.</i> <i>Q: when do I take moments about a point vs. sum forces?</i>
3 Cues & questions AFTER CLASS (5 min) Turn the notes into a question you could be asked. Cover the Notes & answer from these cues. What type of problem is this? Which method fits, or not? Where did I get lost? Is it new? Q: Why 3 eqns for 2D body but 2 for a particle? Q: How do I pick the point for ΣM to reduce the unknowns? ?? Lost at the sign convention ?? for moments – ask TA Thu Q: When is a problem statically indeterminate?	2 Notes DURING CLASS Main points, definitions, governing equations with units & key steps of the lecture. Mark anything that you don't understand. Rigid body equilibrium (2D): $\Sigma F_x = 0$, $\Sigma F_y = 0$, $\Sigma M_O = 0 \rightarrow 3$ eqns Moment of a force: $M_O = F \cdot d$ ($d \perp$ line of action) [N·m]. CCW +ve Steps for every problem: 1. Isolate body $\rightarrow$ FBD (all forces, reactions, dims) 2. Choose point for ΣM where most unknowns pass through 3. Write 3 eqns, solve, check units & sign Ex. 6.2 – beam, pin at A, roller at B, 5 kN at midspan: $\Sigma M_A = 0$: $B_y(4) - 5(2) = 0 \rightarrow B_y = 2.5$ kN $\Sigma F_y = 0$: $A_y + 2.5 - 5 = 0 \rightarrow A_y = 2.5$ kN ✓ symmetric ?? Prof said "moment of a couple is a free vector" – didn't follow Supports: pin = 2 reactions, roller = 1, fixed = 3 (F_x, F_y, M) ?? More unknowns than eqns = statically indeterminate $\rightarrow$ next week

4 AFTER CLASS (3-5 min)	Summary & next action: what matters, what is still unclear & dated task(s) <i>Rigid body: forces + moments.</i> <i>Why is a couple a free vector?</i> <i>Redo Ex. 6.2 closed-book Sep 25</i> <i>Pick ΣM point to kill unknowns.</i> <i>When is a beam indeterminate?</i> <i>Office hrs Sep 29: couples</i>
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