Assessment & Academic Quality Toolkit

Five practical tools for faculty assessment design, review, calibration, and assignment-level AI expectations.

01 Assessment Coverage Matrix

Map outcomes, evidence, weighting, timing, scoring, and accessibility.

02 Assessment Item Review Checklist

Review questions and tasks for clarity, fairness, technical accuracy, safety, and scoring quality.

03 Performance Assessment Design Template

Build authentic tasks from evidence backward, including scope, deliverables, criteria, and pilot checks.

04 Grading Calibration Guide

Align multiple graders around observable evidence and consistent rubric interpretation.

05 AI Use & Academic Integrity Assignment Policy Template

State permitted AI use, disclosure, verification, privacy boundaries, and process-evidence expectations.

Formats

Each tool has a readable web page, a print-ready PDF, and an editable Word file. The collection PDF combines all five tools; the editable ZIP contains the five Word files.

https://educate.baremetalcyber.com/resources/assessment-academic-quality-toolkit/

Assessment Coverage Matrix

Faculty, course leads, and program leaders | Planning Template

Course / program: _____ **Term / cohort:** _____ **Assessment lead:** _____ **Review date:** _____

Use this matrix to verify that every important learning outcome is measured with appropriate evidence, at the right point in the course or program, with a transparent scoring method. It is designed to expose gaps, excessive weighting, and overreliance on one assessment format.

Coverage Matrix

Outcome	Assessment / evidence	Format	When	Weight	Level / skill	Scoring method	Accessibility / alternate	Action

Coverage Summary

Outcome	Introduced / practiced before assessment?	Multiple evidence points?	Direct evidence?	Weight reasonable?	Gap / duplication

Quality Check

[ ] Every required outcome has at least one clearly identified evidence source.

[ ] High-stakes assessments are preceded by meaningful practice and feedback.

[ ] Assessment weight reflects the importance and complexity of the outcome.

[ ] The evidence mix does not depend on one format when another format would better show performance.

[ ] Accessibility, accommodation, and reasonable alternate evidence paths are considered without changing the intended outcome.

[ ] Scoring methods are documented well enough for another qualified instructor to apply them consistently.

Source and use

Bare Metal Cyber Educators Hub, Dr. Jason Edwards. Assessment & Academic Quality Toolkit - Assessment Coverage Matrix.

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Read online: https://educate.baremetalcyber.com/resources/assessment-coverage-matrix/

Assessment Item Review Checklist

Faculty, assessment authors, and reviewers | Assessment Review Tool

Course / assessment: _____ **Item set / version:** _____

Author: _____ **Reviewer:** _____

Review date: _____ **Next review:** _____

Use this checklist before releasing a quiz, exam, scenario prompt, practical task, or scored question bank. Review the item as a learner will see it, then record the disposition and any required revision.

Alignment and purpose

[ ] The item measures a stated course or program outcome.

[ ] The level of difficulty matches the intended level of learning.

[ ] The item tests the intended knowledge, reasoning, or skill rather than an unrelated obstacle.

Clarity and fairness

[ ] The prompt states exactly what the learner must do.

[ ] Unnecessary jargon, trick wording, double negatives, and ambiguous pronouns are removed.

[ ] Required context is provided without giving away the answer.

[ ] The item does not depend on irrelevant cultural, demographic, or personal assumptions.

Technical and security accuracy

[ ] Commands, terminology, artifacts, and scenarios are technically plausible for the stated environment.

[ ] The item does not require unauthorized access, real credentials, sensitive data, or unsafe activity.

[ ] Time-sensitive facts, versions, standards, or tool behavior have a review date.

Response options and distractors

[ ] For selected-response items, one answer is defensibly best under the stated assumptions.

[ ] Distractors are plausible but not misleading because of grammar or formatting clues.

[ ] Answer choices are parallel in style and do not reveal the key through length or wording.

Accessibility and delivery

[ ] Instructions, tables, images, and attachments can be understood with the planned delivery method.

[ ] Time, reading load, color, formatting, and assistive-technology needs have been considered.

[ ] An accommodation or alternate delivery path can preserve the same learning outcome when needed.

Scoring, integrity, and feedback

[ ] The scoring key or rubric matches the prompt.

[ ] Partial credit rules are explicit where appropriate.

[ ] Expected AI/tool use, collaboration, citations, and process evidence are stated.

[ ] Feedback can explain why the response met or missed the intended criteria.

Item Review Record

Item ID	Issue / observation	Severity	Required action	Owner	Disposition

Release Decision

[ ] Approve as written [ ] Approve after minor revision [ ] Return for revision [ ] Retire / replace

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Read online: https://educate.baremetalcyber.com/resources/assessment-item-review-checklist/

Performance Assessment Design Template

Faculty and assessment designers | Planning Template

Course / program: _____ **Assessment title:** _____

Outcome(s): _____ **Designer:** _____

Pilot / release date: _____ **Expected duration:** _____

Design the task from the evidence backward. Start with what successful performance should look like, then define the scenario, authorized scope, deliverables, constraints, and scoring criteria that will produce trustworthy evidence.

1. Authentic Task

Scenario / context

_____

Learner role

_____

Task or decision

_____

Audience / stakeholder

_____

Why this task matters

_____

2. Scope, Resources, and Constraints

Area	Define for this assessment
Authorized environment / data	
Tools and references allowed	
AI / collaboration rules	
Time / attempt limits	
Safety / privacy boundaries	
Accessibility / accommodation path	
Required assumptions	

3. Required Evidence

Deliverable / evidence	What it should demonstrate	Required format	Minimum evidence / traceability

Deliverable / evidence	What it should demonstrate	Required format	Minimum evidence / traceability

4. Scoring Architecture

Criterion	What competent performance looks like	Weight / points	Common failure evidence

5. Administration and Verification

Before release

[ ] Instructions and deliverables can be completed within the planned time and resources.

[ ] A qualified reviewer has walked through the task and scoring criteria.

[ ] Expected evidence is observable and can be traced to the learner or team process.

[ ] The task does not depend on hidden knowledge not taught or listed as a prerequisite.

[ ] A recovery path exists for platform or lab failure that is outside the learner's control.

Pilot Notes / Revisions

Observation	Effect on learner evidence	Revision	Owner / date

Source and use

Bare Metal Cyber Educators Hub, Dr. Jason Edwards. Assessment & Academic Quality Toolkit - Performance Assessment Design Template.

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Read online: https://educate.baremetalcyber.com/resources/performance-assessment-design-template/

Grading Calibration Guide

Faculty, graders, and course leads | Facilitation Guide

Course / assessment: _____ **Rubric version:** _____

Calibration lead: _____ **Session date:** _____

Participating graders: _____ **Next calibration:** _____

Use calibration when multiple people grade the same assessment, when a rubric changes, or when scoring drift is likely. The goal is not identical wording or judgment; it is a shared interpretation of the rubric and a documented way to resolve meaningful scoring differences.

Calibration Workflow

1. Prepare Select 3-5 anonymized samples that represent clear, borderline, and difficult cases. Confirm the rubric and any scoring notes are the versions that will be used.

2. Score independently Each grader scores the same samples without seeing other scores. Record criterion-level ratings and short evidence notes.

3. Compare variance Compare scores by criterion, not only total score. Highlight material differences and criteria that generate repeated disagreement.

4. Discuss evidence Ask what evidence in the work led to each rating. Resolve unclear rubric language by clarifying observable evidence, not by negotiating a preferred grade.

5. Record decisions Document agreed interpretations, edge cases, and examples. Update the rubric or grading notes if the change is substantive.

6. Recheck Rescore one or more samples after discussion. If important disagreement remains, escalate to the course or program lead before grading the full set.

Calibration Record

Sample	Criterion	Grader A	Grader B	Grader C	Difference / issue	Agreed interpretation

Decision Log

Rubric criterion / issue	Decision or clarification	Applies from	Owner	Needs rubric update?

Operational Guardrails

[ ] Use anonymized or institutionally authorized student work for calibration.

[ ] Do not change a learner's standard after grading has begun without applying the change consistently under institutional policy.

[ ] Separate scoring consistency from grade-distribution targets; calibration is about evidence and criteria, not forcing a curve.

[ ] Document material rubric interpretations so adjunct, substitute, or future faculty can apply the same standard.

[ ] Schedule a short midpoint calibration when the assessment is high stakes or the grading window is long.

Source and use

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Read online: https://educate.baremetalcyber.com/resources/grading-calibration-guide/

AI Use & Academic Integrity Assignment Policy Template

Faculty and course leads | Policy Template

Course: _____ **Assignment:** _____

Instructor: _____ **Effective date / version:** _____

Use this assignment-level template to state what generative AI and other assistance tools may or may not do. Adapt it to institutional academic-integrity policy, privacy requirements, accessibility needs, and the actual learning objective. This template does not replace institutional policy.

1. Select the AI Use Level

[ ] Level 0 - No generative AI use for this assignment, except institutionally approved accessibility or accommodation tools.

[ ] Level 1 - AI may be used for brainstorming or study support, but submitted content must be independently produced by the learner.

[ ] Level 2 - AI may assist with drafting, revision, coding, or analysis when the learner discloses how it was used and verifies the output.

[ ] Level 3 - AI use is expected as part of the assignment and the learner is assessed on responsible prompting, verification, documentation, and judgment.

2. Permitted and Prohibited Uses

Use case	Allowed?	Conditions / limits
Brainstorming / outlining		
Explaining concepts / tutoring		
Drafting prose		
Generating or revising code		
Data analysis / transformation		
Image / media generation		
Translation / language support		
Answer generation for graded questions		
Other		

3. Required Disclosure and Verification

Learner requirements

[ ] Identify the AI/tool used and the purpose for using it when disclosure is required.

[ ] Describe material prompts, transformations, or assistance that affected the submitted work.

[ ] Verify technical claims, citations, code behavior, calculations, and factual assertions before submission.

[ ] Take responsibility for the final submission even when a tool contributed to it.

[ ] Preserve drafts, notes, command history, screenshots, version history, or other process evidence when the assignment requires it.

4. Privacy, Security, and Data Boundaries

Do not enter into unapproved AI services

[ ] Passwords, tokens, private keys, or authentication secrets.

[ ] Real customer, patient, student, employee, or other protected personal data.

[ ] Restricted institutional data, proprietary source code, unpublished research, or confidential partner information.

[ ] Malware, exploit material, or operational details outside the authorized instructional scope.

5. Attribution / Evidence Statement

Required statement for this assignment (adapt as needed):

I used the following AI or assistance tools: _____

I used them for: _____

I verified the output by: _____

Process evidence I am submitting: _____

6. Instructor Verification and Consequences

The instructor may ask a learner to explain, reproduce, defend, or extend submitted work when authorship or understanding is unclear. Any academic-integrity concern should be handled under the institution's established policy and due-process requirements rather than under a separate penalty invented for this template.

Institutional policy / URL: _____

Course-specific contact / appeal path: _____

Student Acknowledgement

Student name: _____

Signature / acknowledgement: _____

Date: _____

Source and use

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