



# Creating Online Exams

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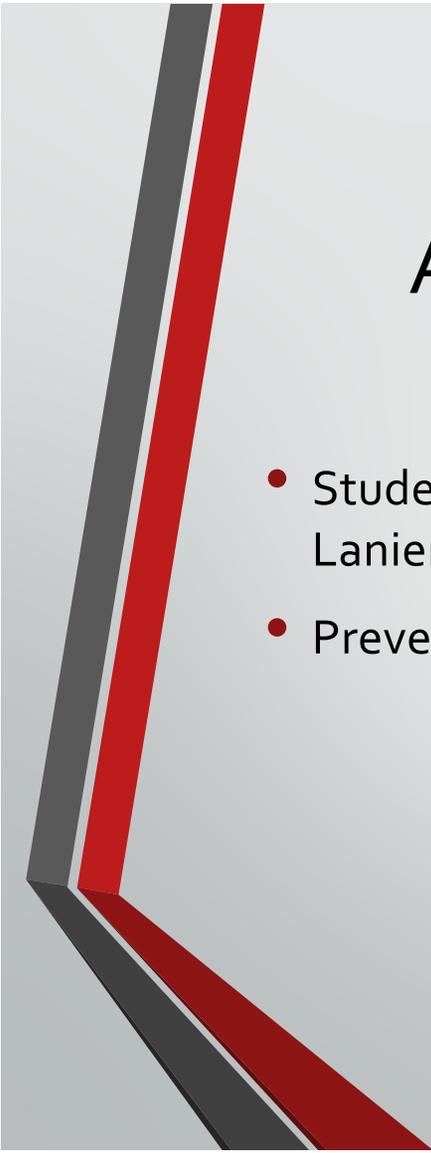
Director of Assessment & Accreditation

**UNLV** | OFFICE OF THE VICE PROVOST FOR ACADEMIC PROGRAMS  
ACADEMIC ASSESSMENT



# Learning Outcomes

- 1. Apply best practices in online exam question writing
- 2. Implement strategies to discourage academic dishonesty
- 3. Make informed decisions about authentic assessment options



# Academic Integrity in the Online Space

- Students cheat, perhaps more often in online courses (Harris et al., 2019; Lanier, 2006; Lee-Post & Hapke, 2017)
- Prevention vs. Enforcement (Lee-Post & Hapke, 2017)

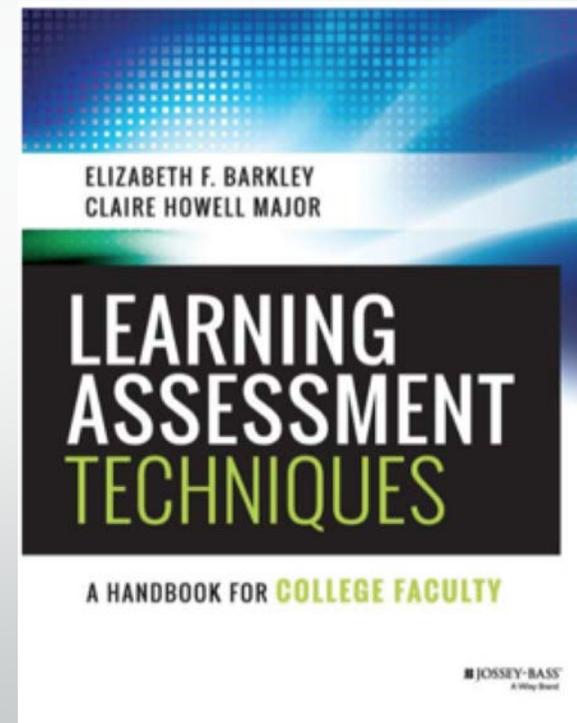
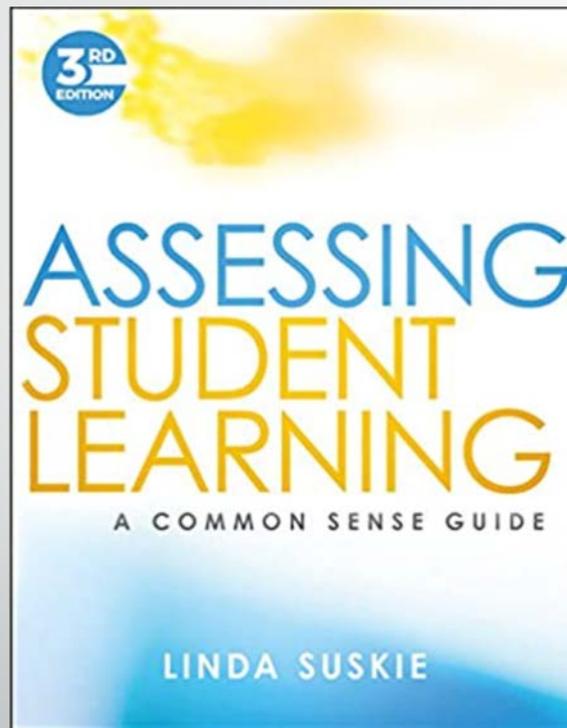


# Academic Integrity

- Prevention
  - Honor code/Discussions of academic integrity
  - Authenticity statements
  - Self-regulation
    - Calendaring, regular study times
  - Randomized test formats
  - Short answer or essay questions
  - Formative assessments vs. High stakes testing
  - Timed Exams – caveat: beware of equity pitfalls

# Academic Integrity

- Enforcement
  - Software like Turnitin
  - Online/In-person proctoring
  - Predictive analytics
    - For example, flag students who did not do their coursework and yet have a perfect score on an exam



# Creating/Revising Exams

- Definitions: Objective Test, stem, responses/options, distractors
- Use a test blueprint (Suskie, 2018)
  - Outline for creating exams that helps you align test items to learning goals & content
  - Can be a [grid](#) or a simple [list](#).
  - Simplifies diagnostics
  - Use [Bloom's Taxonomy](#) to ensure the test is capturing the appropriate level of thinking for your content

# Creating/Revising Exams

- Consider equity
  - Who are your students?
  - Is your test timed? Will your students have enough time to read your item stems and options?
  - Define terms whenever appropriate
  - Simplify vocabulary whenever possible
- Avoid interlocking items
  - Can you figure out an answer by using a previous item?
  - If they get item A wrong, will they automatically get item B wrong as well?

# Stems & Options

- Make stems a complete sentence
- Avoid questions that can be answered using common knowledge, grammatical clues, or clues from other items
- You don't have to have the same number of options for each stem
- Order options logically
- Make all options roughly the same length
- Avoid "none of the above" and "all of the above"

# Distractors

- Use as a diagnostic tool
- Make them plausible
- We all love a goofy distractor occasionally for fun, but if you include them, do it very sparingly
  - Too many = true distraction; excess cognitive load

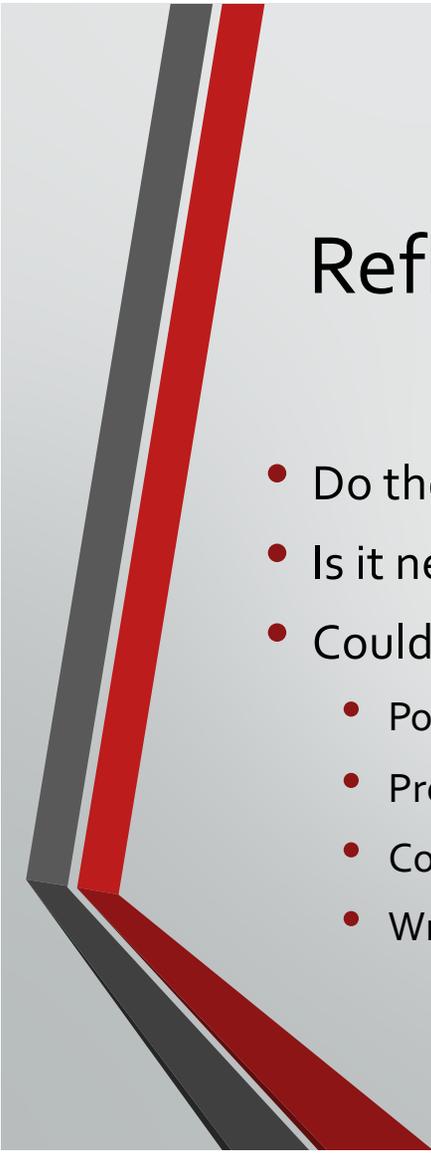


## Challenging items vs. Trick questions

- Use your test blueprint to ensure the material is important
- Make them open book (helps you avoid creating items that students can just look up)
- Build items around common misconceptions
- Evaluate your test items
- Create interpretive exercises

# Interpretive exercises

- Stimulus, like a passage or a chart followed by a set of objective items
- Generally- at least 3 items per stimulus, more if it's longer
  - Don't make it too long
- Watch for interlocking items
- Realistic scenarios
  - Chart, diagram, map, drawing with real or hypothetical information
  - Statement written by scholar or other significant individual
  - Passage from a novel, short story, or poem
  - Description of a real or imaginary scenario; e.g. scientific experiment or business situation.



## Reflection: Are multiple choice tests critical?

- Do they align with the learning goals for your course?
- Is it necessary for students to demonstrate their skills in this way?
- Could other, more authentic assessments do a better job?
  - Portfolios
  - Presentations
  - Collaborative work
  - Written assignments

# What do employers want from our students?

- National Association of Colleges and Employers (NACE) 2020 Job Outlook Report
- 5-point scale, where
- 1=Not essential, 5=Absolutely essential

COMPETENCY	AVERAGE RATING
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Critical Thinking/Problem Solving	4.65
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Teamwork/Collaboration	4.57
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Professionalism/Work Ethic	4.48
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Oral/Written Communication	4.35
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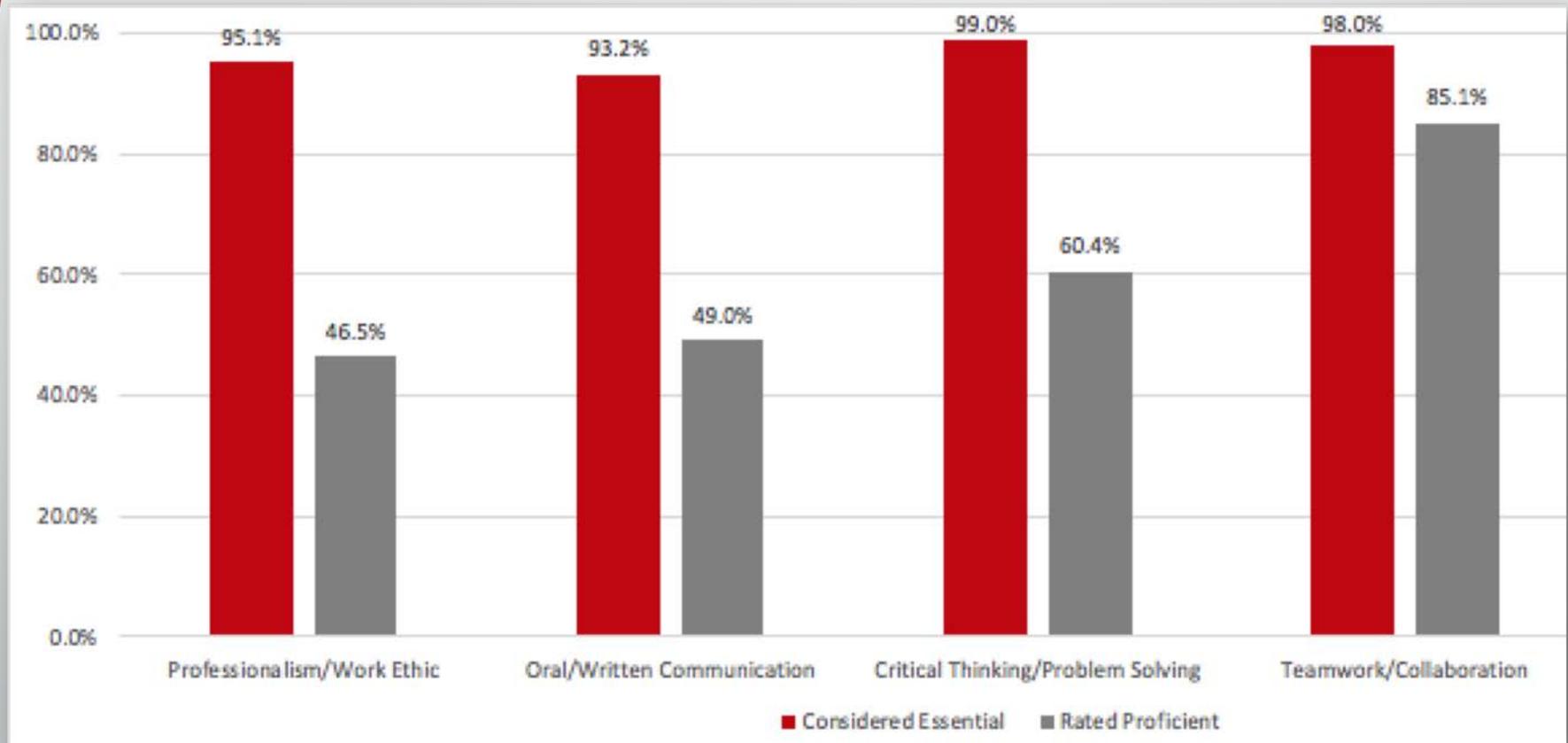
Leadership	3.63
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## Attributes Employers Seek on a Candidate's Resume

- NACE 2020 Job Outlook Report

ATTRIBUTE	% OF RESPONDENTS
Problem Solving Skills	91.2%
Ability to Work in a Team	86.3%
Strong Work Ethic	80.4%
Analytical/Quantitative Skills	79.4%
Written Communication Skills	77.5%
Leadership	72.5%

## Need vs. Proficiency on Career Readiness Competencies



# Finally

- Cheating happens in face to face courses and online
- Create assessments that measure what you want your students to know
  - Keeping in mind what employers actually want
- We have a variety of tools to combat misconduct
  - Remember, none are perfect; all have a "cost"

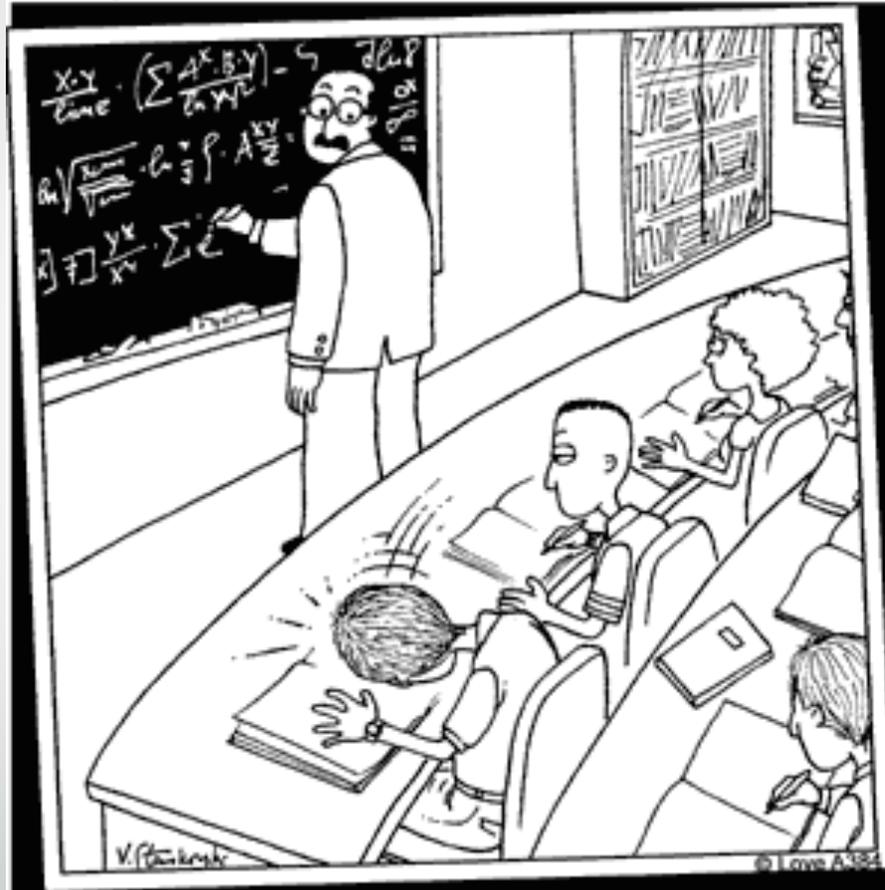
# Online Resources

The image displays two resource cards side-by-side. Each card features the UNLV logo at the top, which includes a compass rose and the text 'INTEGRITY' and 'UNLV ONLINE EDUCATION'. The left card has a red icon of a quiz and is titled 'UNLV Academic Integrity Quiz Template'. The right card has a purple icon of a document and is titled 'UNLV Academic Integrity Assignment Template'. Both cards indicate they are suitable for 'Undergraduate - Graduate' students and were created by 'Elizabeth Barrie'. The left card shows 102 downloads and 3 stars, while the right card shows 25 downloads and 1 star.

Resource Type	Title	Level	Author	Downloads	Stars
Quiz	UNLV Academic Integrity Quiz Template	Undergraduate - Graduate	Elizabeth Barrie	102	3
Assignment	UNLV Academic Integrity Assignment Template	Undergraduate - Graduate	Elizabeth Barrie	25	1

Questions?

Snapshots at [jasonlove.com](http://jasonlove.com)



Professor Herman stopped when he heard that unmistakable thud – another brain had imploded.

# Resources

- Barkley, E.F., & Major, C.H. (2016). *Learning assessment techniques: A handbook for college faculty*. San Francisco: Jossey-Bass
- Harris, L., Harrison, D., McNally, D., & Ford, C. (2019). Academic integrity in an online culture: Do McCabe's findings hold true for online, adult learners?. *Journal of Academic Ethics*. <https://doi.org/10.1007/s10805-019-09335-3>
- Lanier, M.M. (2006). Academic integrity and distance learning. *Journal of Criminal Justice Education*, 17(2), 244-261.
- Lee-Post, A. & Hapke, H (2017). Online learning integrity approaches: Current practices and future solutions, *Online Learning* 21(1),135-145.
- Suskie, L. (2018). *Assessing student learning: A common sense guide (3rd ed)*. Jossey-Bass.
- Online Education
  - <https://www.unlv.edu/teach-online/best-practices/academic-integrity>
  - <https://www.unlv.edu/teach-online/best-practices>
- Office of Academic Assessment
  - [Assessment@unlv.edu](mailto:Assessment@unlv.edu)
  - [Lindsay.couzens@unlv.edu](mailto:Lindsay.couzens@unlv.edu)

HIGH LEVEL THINKING SKILLS

## Analysis

To *examine* in detail. Examining and breaking information into parts by identifying motives or causes; making inferences and finding evidence to support generalisations.

### Questions:

What are the parts or features of ...?  
How is \_\_\_\_\_ related to ...?  
Why do you think ...?  
What is the theme ...?  
What motive is there ...?  
Can you list the parts ...?  
What inference can you make ...?  
What conclusions can you draw ...?  
How would you classify ...?

## Synthesis

To *change* or *create* into something new. Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.

### Questions:

What changes would you make to solve...?  
How would you improve ...?  
What would happen if...?  
Can you elaborate on the reason...?  
Can you propose an alternative...?  
Can you invent...?  
How would you adapt \_\_\_\_\_ to create a different...?  
How could you change (modify) the plot

## Evaluation

To *justify*. Presenting and defending opinions by making judgements about information, validity of ideas or quality of work based on a set of criteria.

### Questions:

Do you agree with the actions/outcomes...?  
What is your opinion of...?  
How would you prove/disprove...?  
Can you assess the value/importance of...?  
Would it be better if...?  
Why did they (the character) choose...?  
What would you recommend...?  
How would you rate the...?  
What would you cite to defend the ac-



*Approximate percentage of total test questions  
(test blueprint)*

*Competency*

Competency/Skill	Approx. %
<b>1 Knowledge of instructional design and planning</b>	<b>18%</b>
<ul style="list-style-type: none"><li>1 Choose appropriate methods, strategies, and evaluation instruments (e.g., formative assessment, summative assessment) for assessing and monitoring student performance levels, needs, and learning.</li><li>2 Select a variety of instructional practices, materials, and technologies that foster critical, creative, and reflective thinking aligned with state-adopted standards at the appropriate level of rigor.</li><li>3 Determine and apply learning experiences and activities that require students to demonstrate a variety of applicable skills and competencies.</li><li>4 Identify instructional resources based on measurable objectives, individual student learning needs, and performance levels.</li><li>5 Apply learning theories to instructional design and planning.</li><li>6 Determine long-term instructional goals and short-term objectives</li></ul>	



Table 5.1 (continued).

Content Domains and Competencies	Weighted Percentage	Analyzing (Bloom's Level 4)	Evaluating (Bloom's Level 5)	Creating (Bloom's Level 6)	Number of Questions
<b>Domain 5: Information Technology:</b>	<b>10</b>				<b>10</b>
5. A. Examine the strategic roles of management information systems in current hospitality/tourism organizations.			4		
5. B. Utilize current information technologies in the hospitality industry.				2	
5. C. Analyze IT-enabled marketing, promotion and distribution practices in the hospitality industry.		4			
<b>Domain 6: Leadership:</b>	<b>10</b>				<b>10</b>
6. A. Examine effective leadership characteristics.				3	
6. B. Demonstrate the affective characteristics of hospitality. Spirit of hospitality.				2	
6. C. Examine the principles of change management.		2			
6. D. Maintain professional and ethical standards in the work environment.			3		
<b>Domain 7: Legal Issues:</b>	<b>10</b>				<b>10</b>
7. A. Analyze legal issues impacting the hospitality industry.		4			
7. B. Understand EEO regulations (sexual harassment, discrimination, ADA, etc.)			3		
7. C. Understand personal safety issues and regulations in the hospitality industry (worker's compensation, OSHA, FMLA, HazComm, etc.)		3			
<b>Domain 8: Globalization:</b>	<b>5</b>				<b>5</b>
8. A. Examine the issues of managing an international hospitality/tourism business from an operations perspective.			2		
8. B. Examine the issues of managing an international hospitality/tourism business from a policy perspective.			2		
8. C. Examine trends in global tourism.			1		
<b>Domain 9: Sustainability:</b>	<b>5</b>				<b>5</b>
9. A. Examine sustainability in the workplace including effects on civic responsibility and stewardship.			1		
9. B. Determine implications of green technology on profitability in the hospitality industry.			2		
9. C. Manage the economic, social, and environmental impacts of tourism to sustain resources.		2			
<b>Total</b>		<b>28</b>	<b>34</b>	<b>38</b>	<b>100</b>
<b>Percent</b>	<b>100%</b>	<b>28%</b>	<b>34%</b>	<b>38%</b>	<b>100%</b>

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