edTechnicians

ASSESSMENTS

# ASSESSMENT

Our programs utilize the most advanced psychometric and big data analytics to provide internal (learner performance and programmatic evaluation) and external insights (national, programmatic normative data and accreditation outcomes) .

Our approach transforms stale test banks and ineffective cram courses into an integrated exam preparation and/or predictive exam program that aligns to providers' educational track curriculum.
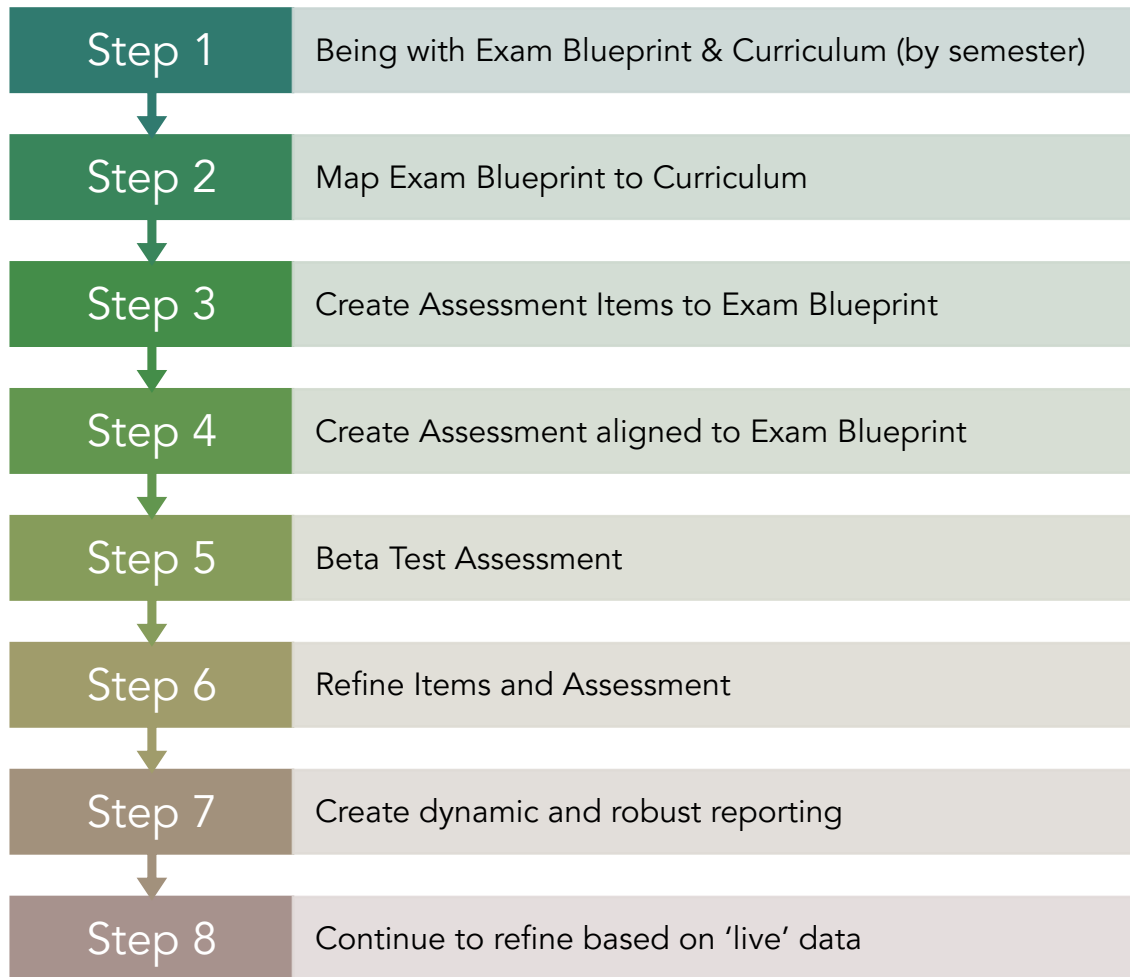
Our innovative product integrates into existing educational learning architecture (i.e., LMS). This prevents the need for logging in to multiple systems and seamless data integration.

- In a modern world, degrees, certifications, and credentials are all valued equally by employers.

- We provide convergence between education and professional credentials that disrupt traditional certification and licensure exam preparation with a formative approach that integrates with a degree and non-degree educational tracks.

- We identify high demand areas in the financial services, medical, and information technology industries that require standardized licensures or certifications, formal education in a fractured exam preparation landscape.

- We create innovative test preparation experiences that improve user satisfaction and accurately measure outcomes.

# INTEGRATED EXAM PREPARATION

- Goal is to improve exam readiness through standardized FORMATIVE preparation
  - Aligned to Curriculum

- We will partner with content/review providers to build/implement integrated assessment

- Can also add a 'predictive' component
  - Guaranteed to Pass (GTP)

| Step | Description |
|------|-------------|
| Step 1 | Being with Exam Blueprint & Curriculum (by semester) |
| Step 2 | Map Exam Blueprint to Curriculum |
| Step 3 | Create Assessment Items to Exam Blueprint |
| Step 4 | Create Assessment aligned to Exam Blueprint |
| Step 5 | Beta Test Assessment |
| Step 6 | Refine Items and Assessment |
| Step 7 | Create dynamic and robust reporting |
| Step 8 | Continue to refine based on 'live' data |

# EVIDENCE BASE
# RESEARCH

- Formative Assessment
  - Aligns standards, content, and assessment
  - Allows for the purposeful selection of learning strategies
  - Embeds assessment in instruction
  - Properly guides instructional decisions

Greenstein (2010

Formative assessment is designed to provide feedback on performance and to improve/accelerate learning.

This technique is significantly more effective when it is embedded in teaching/learning activities. This facilitates the ongoing and actionable feedback to learners.

BMC Med Educ 19, 230, 2019

# EVIDENCE BASE
# RESEARCH

- Formative assessment helps **professors**:
  - Consider each student's learning needs and styles and adapt accordingly
  - Track individual achievement
  - Provide appropriately challenging/motivational instruction
  - Design intentional and objective self-assessments
  - Offer all students opportunities for improvement

_____

Greenstein (2010)

## EVIDENCE BASE
# RESEARCH

- Formative Assessment benefits to **Students**:
  - Emphasizes learning outcomes
  - Makes goals and standards transparent to students
  - Provides clear assessment criteria
  - Closes the gap between what students know and desired outcomes
  - Provides feedback that is comprehensible, actionable, and relevant
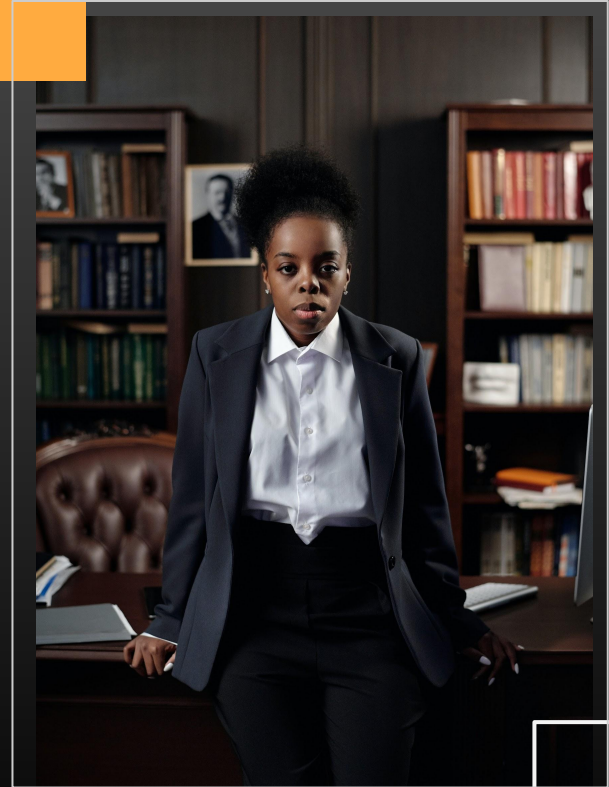  - Provides valuable diagnostic information by generating informative data

Greenstein (2010)

# EVIDENCE BASE
# RESEARCH

Positive evidence that formative assessments help **law student** performance on a cumulative final exam (Sargent and Curcio, 2012).

Analysis on **Medical School** students showed weekly assessment and practice exam performance had a measurable positive relationship with final exam performance (Chang and Wimmers 2016).
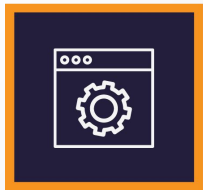
# PROPOSED AREAS OF

# FOCUS

## INTEGRATED EXAM PREPARATION

➔ High demand areas

◆ Financial Services

◆ Medical / Health Care / Wellness

◆ Information Technology

◆ Trades

➔ Require standardized licensures/certifications

➔ Formal education

➔ Fractured exam preparation landscape

# ASSESSMENT
## TOOL / PLATFORM

Refining work on an assessment platform

Cloud based

Ability to support IRT (3P)

Will be API native and support LTI/API integrations with LMS Providers

Ability to launch exams from inside a students LMS experience

Will have the reports/visualizations inside the LMS

Delivery reliability at a minimum of 3 'nines', but the goal is 5 'nines'
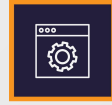
# WIREFRAME(S) & STORYBOARDS

## Test name

Test description long test

Text area for instructions for the test if the user wants to show here

Please click **Start** button when you are ready to begin this test

Start
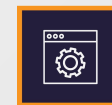
Logo

Dashboard    Item Bank    Tests    Examinees    Analytics

## Collection name 1

| Items | Tags | Assets | Activity Log |

Rectangular Snip

Unique reference    Description    All Tags    Status    ⊕ Add Item

‹ PREVIOUS          1 to 25 *of 4943*  Sort          NEXT ›

### 7df01bee-81a0-4aab-a02f-5a9e56ce982e
Question title Question title Question title

Multiple choice  Passage

▶ Published

✎ 4 days ago

🏷 Tags (2)

Subject: **English**
Course: **Literature**

Mouseover will show user name
and exact date/time in tooltip

### Item ID
Question title 2

Multiple choice  Passage  Audio

▶ Published

✎ 4 days ago

🏷 Tags (2)

Subject: **Math**
Course: **Science**

### ItemID3
Question title 3

Multiple choice

▶ Published

✎ 4 days ago

🏷 No Tags

# WIREFRAME(S) & STORYBOARDS

## ASSESSMENT
TOOL / PLATFORM

# TOP LMS PLATFORM

- ➔ Blackboard
- ➔ Canvas
- ➔ Docebo
- ➔ Google Classroom
- ➔ Schoology
- ➔ Moodle
- ➔ Brightspace
- ➔ Edmodo

_____

https://www.g2.com/categories/learning-management-system-lms
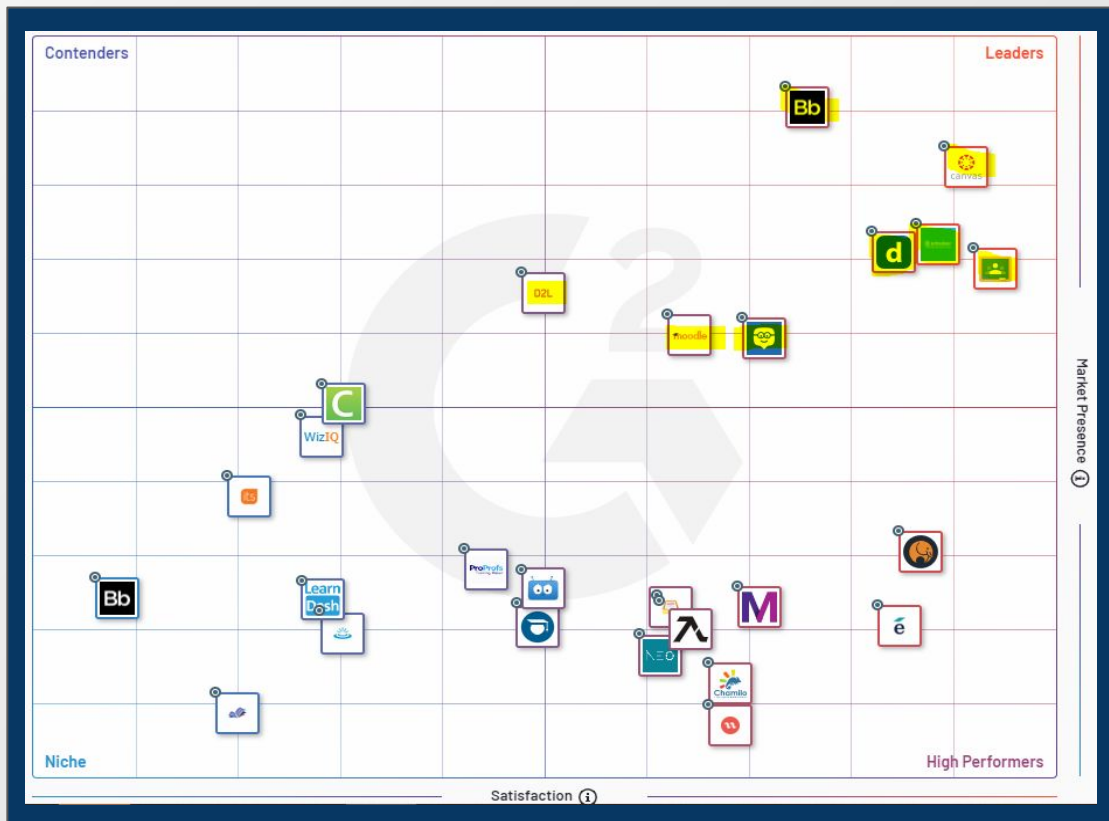
# TARGETED CREDENTIALS
## LICENSES / ORGANIZATION

- Accounting (CPA)
- Engineering (CMS)
- American Sign Language (ASL)
- Construction Management
- Construction QA/QC
- Building Inspection Technology
- Corrections
- Personal Training/Wellness Coach
- Paralegal
- Certified Infection Control (CIC)
- Certified Financial Planner (CFP)
- Certified Dental Assistant (CDA)
- Certified Orthodontic Assistant (COA)
- Certified Pharmacy Tech (CPhT)

- Certified Senior Advisor (CSA)
- Risk and Insurance Management (RIMS)
- Project Management Professional (PMP)
- National Center for Construction Education and Research
- Personal Financial Planner (PFP)
- Certified Analytics Professional (CAP)
- American Society for Clinical Pathology
- Certified Medical Assistant (CMA)
- Wound Care
- ACE & ACSM
- Board Certified Behavior Analyst (BCBA)
- HRCI
- National Association of Legal Assistants (NALA)
- Physician Assistant

# EXAMPLES

https://dalton-education.com/cfp-education-courses

https://umiami.dalton-education.com/

WHITE
PAPER

EMBEDDING CERTIFICATIONS INTO BACHELOR'S DEGREES

CERTIFICATION-DEGREE PATHWAYS PROJECT

# EXAM BLUEPRINT

# Uniform CPA Examination® Blueprints

Approved by the Board of Examiners
American Institute of CPAs
Oct. 23, 2020

Effective date: July 1, 2021

# CURRICULUM

| Term | Course | CPA Preparation Alignment 1 |
|------|--------|------------------------------|
| **FRESHMAN YEAR** | | |
| **Semester I** | **Units** | **Assessment** |
| ECON 101 | Principles of Microeconomics | |
| MATH 115 | College Algebra 3 | |
| CC or electives  9 | | |
| **Semester II** | | |
| ECON 102 | Principles of Macroeconomics | BEC Area II: Economic Concepts and Analysis |
| ITMG 100 | Information Systems | BEC Area IV: Information Technology |
| MATH 130 | | |
| **SOPHOMORE YEAR** | | |
| **Semester I** | | |
| ACCT 201 | Principles of Financial Accounting | |
| ECON 216 | Statistics for Business and Economics  4 | |
| CC or electives  9 | | |
| **Semester II** | | |
| ACCT 202 | Principles of Managerial Accounting | |
| FINA 300 | Financial Management | BEC Area I: Corporate Governance |
| MKTG 300 | Fundamentals of Marketing | |
| CC or electives  6-9 | | |
| **JUNIOR YEAR** | | |
| **Semester I** | | |
| ACCT 300 | Intermediate Accounting I | |
| ACCT 302 | Cost Accounting | |
| DSCI 300 | Prescriptive Business Analytics | |
| MGMT 300 | Organizational Behavior | |
| CC or electives  3 | | |
| **Semester II** | **Hours** | |
| ACCT 301 | Intermediate Accounting II | |
| ACCT 303 | Accounting Information Systems | |
| ACCT 320 | Ethics for Accountants | AUD Area I Ethics, Professional Responsibilities, and General Principles |
| DSCI 303 | Operations Management | BEC Area V: Operations Management |
| or PHIL 332 | Business and Society | BEC Comprehensive Predictor |
| | Business Ethics | |
| CC or electives  3 | | |
| **SENIOR YEAR** | | |
| Semester I | Hours | |
| ACCT 306 | Federal Tax Accounting I | REG Area I: Ethics, Professional Responsibilities and Federal Tax Procedures |
| ACCT 401 | Advanced Accounting | |
| ETLW 311 | Business Law | REG Area II: Business Law |
| CC or electives  6 | | |
| Semester II | | |
| ACCT 407 | Federal Tax Accounting II | REG Area IV: Federal Taxation of Individuals |
| ACCT 408 | Auditing | AUD Area II: Assessing Risk and Developing a Planned Response |

# FORMATIVE ASSESSMENT

| Formative Assessment | Length and weight | Item Types | Delivery |
|---|---|---|---|
| AUD Area I Ethics, Professional Responsibilities, and General Principles | 50 Items 45 Scored 5 unscored | MQC and Simulations | Linear OTF |
| AUD Area II: Assessing Risk and Developing a Planned Response | 50 Items 45 Scored 5 unscored | MQC and Simulations | Linear OTF |
| AUD Area III: Performing Further Procedures and Obtaining Evidence | 60 Items 55 Scored 5 unscored | MQC and Simulations | Linear OTF |
| AUD Area IV: Forming Conclusions and Reporting | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| AUD Comprehensive Predictor | 60 Items 55 Scored 5 unscored | MQC and Simulations | Linear OTF |
| BEC Area I: Corporate Governance | 50 Items 45 Scored 5 unscored | MQC and Simulations | Linear OTF |
| BEC Area II: Economic Concepts and Analysis | 50 Items 45 Scored 5 unscored | MQC and Simulations | Linear OTF |
| BEC Area IV: Information Technology | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| BEC Area V: Operations Management | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| BEC Comprehensive Predictor | 60 Items 55 Scored 5 unscored | MQC and Simulations | Linear OTF |
| FAR Area I: Conceptual Framework, Standard-Setting, and Financial Reporting | 50 Items 45 Scored 5 unscored | MQC and Simulations | Linear OTF |
| FAR Area II: Select Financial Statement Accounts | 60 Items 55 Scored 5 unscored | MQC and Simulations | Linear OTF |
| FAR Area III: Select Transactions | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| FAR Area IV: State and Local Governments | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| FAR Comprehensive Predictor | 60 Items 55 Scored 5 unscored | MQC and Simulations | Linear OTF |
| REG Area I: Ethics, Professional Responsibilities and Federal Tax Procedures | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| REG Area II: Business Law | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| REG Area III: Federal Taxation of Property Transactions | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| REG Area IV: Federal Taxation of Individuals | 30 Items 25 Scored 5 unscored | MQC and Simulations | Linear OTF |
| REG Comprehensive Predictor | 60 Items 55 Scored 5 unscored | MQC and Simulations | Linear OTF |
| Comprehensive CPA Predictor (CCP) | 180 Items 170 Scored 10 unscored | MQC and Simulations | Linear OTF |

# REPORTING

## Group Performance Profile
## CPA* Attestation and Auditing Area I

| | | | |
|---|---|---|---|
| Assessment #: | 3914332 | Adjusted Group Score: | 53.8% |
| Institution: | **University of Miami** | % of Group Meeting | |
| | | Institution Benchmark: | N/A |
| Program Type: | **BA** | | |
| Group Size: | **11** | | |
| Test Date: | **10/15/2020** | | |
| # of Questions: | **60** | | |

### Group Performance Summary Table

| Proficiency Level | Individual Score Required for Proficiency Level | % and # of Group at Proficiency Level |
|---|---|---|
| Level 3 | 73.3% - 100.0% | 9.1% (1) |
| Level 2 | 63.3% - 71.7% | 9.1% (1) |
| Level 1 | 50.0% - 61.7% | 54.5% (6) |
| Below Level 1 | <50.0% | 27.3% (3) |

Note:Proficiency Levels pertain to individual scores only. Group scores are not classified by proficiency level.

| Individual Mean-National | Individual Mean-Program |
|---|---|
| 59.5% | 59.9% |
| % of Group Above Individual Mean-National | % of Group Above Individual Mean-Program |
| 27.3% | 27.3% |

### Group Performance in the Major Content Areas

| Sub-Scale | # Items | Group Score |
|---|---|---|
| Nature and scope | 3 | 42.4% |
| Ethics, independence, and professional conduct | 7 | 57.1% |
| Terms of engagement | 2 | 31.8% |
| Requirements for engagement documentation | 5 | 47.3% |
| Communication with management | 9 | 65.7% |
| Communication with component auditors | 15 | 58.8% |
| A firm's system of quality control | 19 | 44.5% |

NOTE: Means and percentile ranks are not presented for sub-scales with fewer than five items.

# REPORTING

## Group Scores

| Sub-Scale | # Items | Group Score | Group Score (% correct) |
|---|---|---|---|
| **Nature and Scope** | 3 | 42.4% | ~40 |
| Audit Engagements | 1 | 18.2% | ~18 |
| Engagements Conducted Under: GAO and Other | 2 | 54.5% | ~55 |
| **Ethics, independence, and professional conduct** | 7 | 57.1% | ~57 |
| AICPA Code of Professional Conduct | 2 | 31.8% | ~32 |
| Requirements of SEC | 4 | 61.4% | ~61 |
| Requirement of GAO | 1 | 90.9% | ~91 |
| **Terms of Engagement** | 2 | 31.8% | ~32 |
| Preconditions of an Engagement | 1 | 9.1% | ~9 |
| Terms of Engagement- Engagement Letter | 1 | 54.5% | ~55 |
| **Requirements for Engagement Documentation** | 5 | 47.3% | ~47 |
| Identify the elements | 1 | 9.1% | ~9 |
| Identify the requirements | 1 | 63.6% | ~64 |
| Prepare documentation | 1 | 45.5% | ~46 |
| Prepare Conclusion | 2 | 59.1% | ~59 |
| **Communication with management** | 9 | 65.7% | ~66 |
| Planned Scope and Timing of Engagement | 3 | 78.8% | ~79 |
| Internal Control | 2 | 72.7% | ~73 |
| Related Matters | 1 | 54.5% | ~55 |
| Quality Control | 3 | 43.2% | ~43 |

Group Score (% correct) scale: 1  10  20  30  40  50  60  70  80  90  100

# REPORTING

## Topics To Review

| | % of students answering the Item Correctly |
|---|---|
| **Nature and Scope (3 items)** | |
| **Audit Engagements (1 item)** | |
| Identify the nature, scope and objectives of the different types of audit engagements, including issuer and nonissuer audits | 18.2% |
| **Engagements Conducted Under GAO (2 items)** | |
| Identify the nature, scope and objectives of engagements performed in accordance with GAO | 18.2% |
| Identify the nature, scope and objectives of attestation engagements | 90.9% |
| **Ethics, independence, and professional conduct (7 items)** | |
| **AICPA Code of Professional Conduct  (2 items)** | |
| Apply the Conceptual Framework | 18.2% |
| Recognize situations that present threats to compliance | 45.5% |
| **Requirements of SEC (4 items)** | |
| Understand the ethical requirements | 18.2% |
| Recognize situations that present threats to compliance | 54.5% |
| Apply the ethical requirements and independence rules | 72.7% |
| Health Promotion of the Infant (Birth to 1 Year): Recognizing Developmental Delays | 100.0% |
| **Requirements of GAO (1 item)** | |
| Understand the ethical requirements | 90.9% |
| **Terms of Engagement (2 items)** | |
| **Preconditions for an engagement  (1 item)** | |
| Identify the preconditions needed for accepting or continuing an engagement | 9.1% |
| **Engagement Letter (1 item)** | |
| Identify the factors affecting the acceptance or continuance of an engagement. | 54.5% |

# REPORTING

## Outcomes

| AACSB Contiuous Improvement | No of Items | Group Score | Description |
|---|---|---|---|
| Foundational Thinking in Accounting | 16 | 51.1% | Ability to recall and comprehend information and concepts foundational to quality accounting practice. |
| Professional Judgment/Critical Thinking in Accounting | 44 | 52.9% | Ability to use critical thinking skills (interpretation, analysis, evaluation, inference, and explanation) to make a professional judgment |

| Regional Accrediation Self Study | No of Items | Group Score | Description |
|---|---|---|---|
| | 8 | 50.0% | Ability to demonstrate professional judgment in making decisions about priority responses to a client problem. |

# REPORTING

## Individual Scores

Individual Mean-National = 59.5%          Individual Mean-Program = 59.9%

| Name | Student Number | ATI Proficiency Level | Institution Benchmark Met | Percentile Rank National | Percentile Rank Program | Adjusted Individual Score | Adjusted Individual Score (% correct) 1 10 20 30 40 50 60 70 80 90 100 |
|---|---|---|---|---|---|---|---|
| BALLESTEROS, JANE P | 2450720 | Below Level 1 | N/A | 2 | 1 | 38.3% | ▲ |
| CAVER, KACIMMA | | Level 1 | N/A | 44 | 43 | 56.7% | ▲ |
| DOBBINS, ANGELA M | 2440312 | Level 2 | N/A | 69 | 68 | 63.3% | ▲ |
| GILES, VICKIE M | 929164152 | Level 1 | N/A | 31 | 28 | 53.3% | ▲ |
| JOHN, LINDA B | 900625499 | Level 1 | N/A | 50 | 48 | 58.3% | ▲ |
| JONES, MARILYN J | 2432943 | Level 1 | N/A | 57 | 54 | 60.0% | ▲ |
| ODOGWU, EDNA | | Below Level 1 | N/A | 4 | 2 | 41.7% | ▲ |
| OKIYIE, AUGUSTINE E | 900351956 | Below Level 1 | N/A | 1 | 1 | 33.3% | ▲ |
| PERKINS, MICHELLE L | | Level 1 | N/A | 50 | 48 | 58.3% | ▲ |
| RAYBURN, KIMBERLEY D | 2427658 | Level 1 | N/A | 37 | 34 | 55.0% | ▲ |
| RODRIGUEZ, VICTORIA P | | Level 3 | N/A | 93 | 94 | 73.3% | ▲ |

# REPORTING

## Score Explanation and Interpretation
### Group Performance Profile

**Group Score:** This score is determined by adding all of the individual scores from the group and dividing the sum by the number of individuals in the group. This group score describes how, on average, the students within the group performed on the assessment (or within a designated sub scale).

$$\frac{\text{Sum of Individual Scores Within the Group}}{\text{Number of Individuals in the Group}} = \text{Group Score}$$

For example:

$$\frac{40.7\% + 53.2\% + 69.4\% + 70.8\% + 82.1\%}{5 \text{ Individuals in the Group}} = 63.2\%$$

Group scores can be interpreted through "criterion-referenced" or "norm-referenced" measures. Criterion-referenced measures are best used to determine if an established standard has been met (e.g., % of students achieving a particular score or proficiency level). Norm-referenced measures can be useful for comparing performance to other students or groups.

**Pretest Items:** There are 5 unscored pretest questions throughout the assessment, and 60 scored questions. The pretest questions are used for research purposes.

### Criterion-Referenced ATI Proficiency Levels:

These classifications were developed as the result of a national standard setting study conducted by EG, involving nurse educator content experts from across the U.S. The classifications apply only to individual scores, and not to groups. The level 1, 2, and 3 standards do not pertain to group scores.

**Level 3** - Scores meeting the Proficiency Level 3 standard may be considered to exceed most expectations for performance in this content area. Scores at this level were judged by the content expert panel to indicate a student as likely to exceed CPA standards in this content area. ATI advises these students to engage in continuous focused review to maintain and improve their knowledge of this content.

**Level 2** - Scores meeting the Proficiency Level 2 standard may be considered to exceed minimum expectations for performance in this content area. Scores at this level were judged by the content expert panel to indicate a student as fairly certain to meet CPA standards in this content area. EG advises these students to engage in continuous focused review in order to improve their knowledge of this content.

**Level 1** - Scores meeting the Proficiency Level 1 standad may be considered to meet the absolute minimum expectations for performance in this content area. Scores at this level were judged by the content expert panel to indicate a student as likely to just meet CPA standards in this content area. EG advises these students to develop and complete a rigorous plan of focused review in order to achieve a firmer grasp of this content.

**Below Level 1** — Scores below the Proficiency Level 1 standard can be considered below minimum expectations and may be indicative of significant risk in this content area. We strongly advises these students to develop and complete an intensive plan for focused review and remediation, including the use of our materials, textbooks, class notes, reference materials, and assistance from educators.

### Norm-Referenced Measures:

Means and percentile ranks can be useful for comparing performance to other nursing education groups, both nationally and within the same Accounting program type. These means and percentile ranks are initially set on a volunteer norming sample. They are reviewed annually, and may be periodically reset as more students take the assessments.

### Mean - National:

The group mean - national is the average of all group scores (within a specified sample from the data pool) for this assessment. The group mean - national includes all accounting program types. The individual mean - national is based on ACC student scores from all ACC program types.

### Mean - Program:

The group mean - program is the average of all group scores of your ACC program type (within a specified sample from the data pool) for this assessment. The individual mean - program is based on ACC student scores from your program type.

### Percentile Rank - National:

The national percentile rank refers to the proportion of groups from all types of ACC nursing programs (within a specified sample from the ACC data pool) whose scores are the same as or lower than your group score.

### Percentile Rank - Program:

A program percentile rank refers to the proportion of groups from your specific type of ACC nursing program (within a specified sample from the data pool) whose scores were the same as or lower than your group score.

**NA:** Data not available

### Topics to Review:

Based on the questions missed on this assessment, a listing of content areas and topics to review is provided. A variety of learning resources may be used in the review process, including content, images, animations and videos in select components of our Review Modules, and online practice assessments.

### Institution Benchmark:

Institutions have the option to set their own benchmarks. If your institution has not set a benchmark for the assessment, this score report field will be reported as "N/A".