



**TRAINING TITLE:**

ASQ Certified Quality Improvement Associate  
Academia (ACAD-006)

**OVERVIEW:**

The Certified Quality Improvement Associate is a professional who understands quality tools and their uses and participates in quality improvement projects, but does not necessarily come from a traditional quality area.

**TARGET GROUP FOR THE CONFERENCE:**

This training is aimed at all persons interested in preparing for the ASQ Certified Quality Improvement Associate exam provided twice per year. Attendees will obtain a better understanding of some of the quality tools required to become a quality improvement associate.

**LEARNING OBJECTIVES:**

- Identify the most widely used quality tools and techniques
- Apply the appropriate tools for each situation faced on a daily basis by a quality improvement associate
- Prepare for the ASQ Certified Quality Improvement Associate exam

**MATERIALS:**

Each participant will receive:

- *CQIA Primer and Solution Text*, published by Quality Council of Indiana
- *The ASQ Quality Improvement Pocket Guide*, published by ASQ Quality Press
- Certificate of Attendance

**TRAINING DURATION:**

14 contact hours



BEC is authorized by IACET to offer 1.4 CEUs for this program. FULL attendance to the learning event is mandatory to receive CEUs.

**COURSE INSTRUCTOR:**

**Armando Avilés Hernández** is a training consultant within the FDA-regulated industries with more than 10 years of extensive experience in the Regulated Industry that includes GMP, ISO, and OSHA requirements, including training, document control, change control processes, and CAPA investigation techniques. He has a Bachelor's Degree in Biology from University of Puerto Rico, Cayey Campus. He also has a Master of Science in Biotechnology from Johns Hopkins University, in Maryland U.S.A. He is an ASQ Certified Biomedical Auditor, and Certified Quality Improvement Associate. He is also a CAPA System Expert Investigator.

**Arlene Delgado Velázquez** is a training consultant within the FDA-regulated industries and educational sectors with over 20 years of experience. She has a Bachelor Degree in Industrial Microbiology from the University of Puerto Rico, at Humacao Campus. She also has a Master Degree in Industrial Engineering in Manufacturing Competitiveness and Quality Management from the Polytechnic University of Puerto Rico, in Hato Rey, P.R. Since year 2013, she is fully devoted to consulting under Business Excellence Consulting Inc, focusing on training on related Quality sectors. She also serves as professor in the Humacao Community College for Biology, Biotechnology, Microbiology and Validation, and GMP courses. She is an ASQ Certified Six Sigma Green Belt, Manager of Quality & Organizational Excellence and Certified Quality Auditor.

**Manuel E. Peña-Rodríguez** is a process improvement and training consultant within the textiles, electronics, and FDA-regulated industries with more than 20 years of experience in those fields. Since January 2006, he is fully devoted to consulting under Business Excellence Consulting Inc, focusing on training and implementation of Lean Six Sigma initiatives and CAPA / Root Cause Analysis workshops. He also serves as professor in the graduate program in biochemistry at the University of Puerto Rico, Medical Sciences Campus, in San Juan. Manuel received his J.D. degree from the Pontifical Catholic University of Puerto Rico and his master's of engineering in Engineering Management from Cornell University in Ithaca NY. He is also a licensed Professional Engineer registered in Puerto Rico. Manuel is an ASQ Certified Six Sigma Black Belt, Manager of Quality & Organizational Excellence, Quality Engineer, Quality Auditor, Biomedical Auditor, and HACCP Auditor. He is also a Senior member of ASQ and former Chair of the Puerto Rico ASQ Section. He is the author of the book "*Statistical Process Control for the FDA-Regulated Industry*", published by ASQ Quality Press in April 2013 and co-author (with José Rodríguez-Pérez) of the article "*Fail-Safe FMEA*" published in the January 2012 edition of the ASQ Quality Progress magazine.



**Title:** ASQ Certified Quality Improvement Associate Academia (Day 1)

**Lunch** from 12:00 – 13:00.

**Coffee break:** 15 min. each during morning and afternoon session. Time schedule are rough estimates and may vary consequently.

**Agenda**

8:30 – 9:00	<b>Certification Overview</b>
9:00 – 10:15	<p><b>Quality Concepts</b></p> <ul style="list-style-type: none"> <li>• Quality definitions</li> <li>• Quality defined</li> <li>• Organizational quality steps</li> <li>• Quality terms</li> <li>• Quality planning</li> <li>• Quality principles</li> <li>• Quality policies</li> <li>• Strategic quality goals</li> <li>• Tactical quality goals</li> <li>• Quality maturity</li> <li>• Importance of employees</li> <li>• Individual involvement</li> <li>• Employee empowerment</li> <li>• Quality of work life</li> <li>• Systems and processes</li> <li>• Variation</li> <li>• Special vs. common cause</li> <li>• Sources of variability</li> <li>• Practice Exercises</li> </ul>
10:15 – 10:30	<b>Break</b>
10:30 – 12:00	<p><b>Quality Benefits and Philosophies</b></p> <ul style="list-style-type: none"> <li>• Benefits of quality</li> <li>• Stakeholder groups</li> <li>• Stakeholder quality benefits</li> <li>• Quality philosophies</li> <li>• Philip Crosby</li> <li>• W. Edwards Deming</li> <li>• Joseph M. Juran</li> <li>• Comparisons</li> <li>• Practice exercises</li> </ul>

12:00 – 13:00	<b>Lunch</b>
13:00 – 15:00	<b>Team Roles and Responsibilities</b> <ul style="list-style-type: none"> <li>• Team purposes</li> <li>• Team benefits</li> <li>• Types of teams</li> <li>• Synopsis of team applications</li> <li>• Roles and responsibilities</li> <li>• Sponsor/champion role</li> <li>• Leader role</li> <li>• Facilitator role</li> <li>• Team member role</li> <li>• Measurement of performance</li> <li>• Practice Exercises</li> </ul>
15:00 – 15:15	<b>Break</b>
15:15 – 17:00	<b>Team Formation and Dynamics</b> <ul style="list-style-type: none"> <li>• Initiating teams</li> <li>• Team building</li> <li>• Team activities</li> <li>• Team charter</li> <li>• Team guidelines</li> <li>• Team meeting structure</li> <li>• Reward &amp; recognition</li> <li>• Selecting team members</li> <li>• Team size</li> <li>• Team diversity</li> <li>• Team stages</li> <li>• Team barriers</li> <li>• Common team problems</li> <li>• Groupthink</li> <li>• Conflict resolution</li> <li>• Decision making</li> <li>• Practice exercises</li> </ul>



**Title:** ASQ Certified Quality Improvement Associate Academia (Day 2)

**Lunch** from 12:00 – 13:00.

**Coffee break:** 15 min. each during morning and afternoon session. Time schedule are rough estimates and may vary consequently.

**Agenda**

8:30 – 10:15	<p><b>Continuous Improvement</b></p> <ul style="list-style-type: none"> <li>• Incremental &amp; breakthrough</li> <li>• Incremental improvement</li> <li>• Breakthrough improvement</li> <li>• Reengineering</li> <li>• Six sigma</li> <li>• Kaizen</li> <li>• Non-valued-added activities</li> <li>• Mistake proofing</li> <li>• Cycle time reduction</li> <li>• Concurrent activities</li> <li>• Improvement cycles (PDCA/(PDSA)</li> <li>• Problem solving processes</li> <li>• Classical steps</li> <li>• DMAIC</li> <li>• Root cause analysis</li> <li>• Improvement barriers</li> <li>• Practice Exercises</li> </ul>
10:15 – 10:30	<p><b>Break</b></p>
10:30 – 12:00	<p><b>Basic Quality Tools</b></p> <ul style="list-style-type: none"> <li>• Cause-and-effect diagrams</li> <li>• Flow charts</li> <li>• Data types</li> <li>• Check sheets</li> <li>• Histograms</li> <li>• Pareto diagrams</li> <li>• Scatter diagrams</li> <li>• Control charts</li> <li>• Variables</li> <li>• Attributes</li> <li>• Interpretation</li> <li>• Practice exercises</li> </ul>

12:00 – 13:00	<b>Lunch</b>
13:00 – 15:00	<b>Quality Management Tools</b> <ul style="list-style-type: none"> <li>• Brainstorming</li> <li>• Affinity diagrams</li> <li>• Benchmarking</li> <li>• Quality costs</li> <li>• Cost categories</li> <li>• Cost improvement</li> <li>• Cost bases</li> <li>• Quality audits</li> <li>• Types of audits</li> <li>• Audit responsibilities</li> <li>• Audit preparation/execution</li> <li>• Audit report</li> <li>• Audit terms</li> <li>• Practice exercises</li> </ul>
15:00 – 15:15	<b>Break</b>
15:15 – 17:00	<b>Customer-Supplier Relationships</b> <ul style="list-style-type: none"> <li>• Internal customers</li> <li>• Internal customer feedback</li> <li>• External customers</li> <li>• Customer expectations</li> <li>• Customer needs</li> <li>• Customer satisfaction</li> <li>• Customer service principles</li> <li>• Quality function deployment</li> <li>• External customer feedback</li> <li>• Internal suppliers</li> <li>• Internal supplier feedback</li> <li>• External suppliers</li> <li>• Supplier ratings</li> <li>• Supplier communications</li> <li>• Supplier certification</li> <li>• External supplier feedback</li> <li>• Practice exercises</li> </ul>