QUALITY ASSURANCE, MASTER OF SCIENCE

Requirements

Admission Requirements
1. To be admitted into the Master of Science in Quality Assurance Program, students must meet the following requirements:
2. Meet all CSU Dominguez Hills graduate admission requirements.
3. A baccalaureate degree from a four-year accredited institution is required. An undergraduate major in engineering or science is preferred. Please see the note below.
4. A grade point average of at least 2.75 in the last 60 semester units of upper division course work attempted.
5. Good standing at the last institution attended.
6. Meet all other university admission requirements.

The baccalaureate degree should have included the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Calculus (integral and differential)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Chemistry (general)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mathematical Statistics &amp; Theories of Probability (upper division)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Principles of Computer Technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>21</td>
</tr>
</tbody>
</table>

Note: Individuals from other undergraduate disciplines who demonstrate exceptional promise may be admitted to the program, pending completion of additional undergraduate prerequisite coursework or other demonstrations of competence as determined by the Quality Assurance Academic Program Committee. All special admissions are subject to approval by the Quality Assurance Academic Program Committee.

Degree Requirements
1. Complete 30 semester units of approved graduate work.
2. Complete at least 24 semester units in residence.
3. Successfully complete the major courses listed below.
4. Complete all coursework with a grade point average of at least 3.0 (B).
5. Complete a culminating project or thesis.
6. Successfully complete the Graduation Writing Assessment Requirement (GWAR).
7. In addition to the major requirements, students must meet all university requirements for the master’s degree. Students should consult the section of the University Catalog entitled “Requirements for the Master’s Degree.”

MSQA students choose from one of the following two programs. Each student should contact the MSQA coordinator prior to taking classes.

Master of Science in Quality Assurance (30 units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Common Courses</td>
<td></td>
</tr>
<tr>
<td>QAS 511</td>
<td>Quality Function Management and TQM</td>
<td>3</td>
</tr>
<tr>
<td>QAS 515</td>
<td>Human Factors in Quality Assurance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Options had to be completed with at least 24 units in residence.</td>
<td></td>
</tr>
<tr>
<td>QAS 518</td>
<td>Quality Project Management and Productivity</td>
<td>3</td>
</tr>
<tr>
<td>QAS 599</td>
<td>Project</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following Options:

Manufacturing Option:
- QAS 510 Advanced Probability and Statistics
- QAS 512 Reliability
- QAS 513 Statistical Quality Control and Sampling
- QAS 514 Advanced Experimental Design
- QAS 516 Measurement and Testing Techniques
- Select six units from the electives listed below

Service and Health Care Option:
- QAS 530 Statistical Quality Control (SQC) for Service Professionals
- QAS 531 Customer Satisfaction and Quality Assurance
- QAS 532 Quality Assurance of the Service Delivery Process
- Select twelve units from the electives listed below

Electives
- QAS 521 Process Control and Capability
- QAS 522 Applied Systems Reliability, Maintainability and Safety
- QAS 523 Software Reliability
- QAS 525 ISO 9000 & The Audit Function
- QAS 526 Supplier Quality Assurance
- QAS 527 Quality Measurement
- QAS 534 Change Management
- QAS 535 Lean Manufacturing
- QAS 536 Six Sigma Principles and Applications
- QAS 537 Quality Function Deployment: Understanding Customer Requirements
- QAS 538 Evaluation and Outcome Analysis for Healthcare Delivery
- QAS 539 Good Manufacturing Practices
- QAS 540 Food and Drug Law
- QAS 541 Biomedical Quality Control Methods
- QAS 542 Risk Management in FDA Regulated Industries
- QAS 543 Identification and Mitigation of Suspect and Counterfeit Items
- QAS 544 Digital Transforming Quality 4.0 with Industry 4.0
- QAS 545 Laboratory Conformity Assessment
- QAS 546 Case Studies in Quality
- QAS 591 Credit for Prior Learning: Quality Auditing
- QAS 592 Credit for Prior Learning (CPL) Quality Measurement
- QAS 593 Credit for Prior Learning (CPL) Six Sigma Principles and Applications
- QAS 594 Ind Study In Assurance Science
- QAS 598 Directed Research

Capstone
- Complete the Comprehensive Exam

Total Hours
33
Program Learning Outcomes

1. Apply advanced principles and tools from quality and measurement science to problem solving and measuring reliability and performance in production and service industries.
2. Demonstrate the ability to communicate problems processes and solutions to management and external audiences using technical and business communications.
3. Evaluate complex, integrated organizational systems and processes in order to recognize and measure system failures scientifically, synthesize data and form solutions.
4. Explain (in technical and non-technical terms) measurement uncertainty and errors by using advanced methods from dimensional, electrical and physical metrology and develop solutions to minimize these errors.
5. Demonstrate the ability to conduct independent research using primary and secondary sources, analyze information, interpret data, draw conclusions.
6. Demonstrate an understanding of the roles and responsibilities of a Quality professional, including staying abreast the ASQ Body of Knowledge and industry standards.
7. Demonstrate advanced knowledge of mathematics, probability and statistics, science and quality concept to solve problems.
8. Design a quality system, component, experiment, or process to meet industry standards.
9. Identify, formulate and solve quality problems involving physical, human, and economic parameters.