

# QUALITY ASSURANCE, MASTER OF SCIENCE

## Requirements

### Admission Requirements

- To be admitted into the Master of Science in Quality Assurance Program, students must meet the following requirements:
- Meet all CSU Dominguez Hills graduate admission requirements.
- 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.
- A grade point average of at least 2.75 in the last 60 semester units of upper division course work attempted.
- Good standing at the last institution attended.
- Meet all other university admission requirements.

The baccalaureate degree should have included the following:

Code	Title	Hours
	Calculus (integral and differential)	6
	Chemistry (general)	3
	Physics	3
	Mathematical Statistics & Theories of Probability (upper division)	6
	Principles of Computer Technology	3
<b>Total Hours</b>		<b>21</b>

**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

- Complete 30 semester units of approved graduate work.
- Complete at least 24 semester units in residence.
- Successfully complete the major courses listed below.
- Complete all coursework with a grade point average of at least 3.0 (B).
- Complete a culminating project or thesis.
- Successfully complete the Graduation Writing Assessment Requirement (GWAR).
- 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)

Code	Title	Hours
<b>Common Courses</b>		
QAS 511	Quality Function Management and TQM	3
QAS 515	Human Factors in Quality Assurance	3

QAS 518	Quality Project Management and Productivity	3
QAS 599	Project	3

### Options

Select one of the following Options: 21

#### 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.