



LABORATORY QUALITY SYSTEMS

SEPTEMBER 1 – DECEMBER 8, 2014

ONLINE PROFESSIONAL EDUCATION

Laboratory Quality Systems is a professional education course that is intended to equip the participant with the breadth of knowledge needed to obtain laboratory data and results that are reliable, interpretable, repeatable, and defensible.

The course content explores: quality systems and method development used within a laboratory; ensuring the integrity of procedures used in lab processes; chain of custody; information management; international laboratory standards; regulatory requirements for laboratory operation; bio-security precautions; laboratory management; participation on a laboratory management team; and forming a technology strategy.

Who Should Attend: Individuals who benefit from this training include lab managers, quality assurance personnel, technicians and others who need to possess a practical knowledge of the standard laboratory practices and quality systems required to oversee a scientific laboratory's quality management program.

Course Delivery: To meet the needs of working professionals, this course is delivered entirely at a distance through Texas A&M University's secure learning management system. Laboratory Quality Systems a professional education course based on a rigorous, graduate-level curriculum. Participants can expect to spend approximately 8-10 hours per week to complete weekly assigned readings, listen to audio-over-PowerPoint presentations, participate through discussion boards, complete assignments, and submit quizzes and exams.

To ensure successful participation in these courses, students must have access to:

- A computer that is less than 4 years old;
- High-speed Internet connection (cable/DSL or better) & updated browser;
- Office software such as Microsoft Word, PowerPoint & Excel or equivalent;
- Common plug-ins (e.g., Adobe Reader, Flash Player, virus protection, etc.);
- Microphone and speakers; and
- CD/DVD player/burner.

How to Register: Please contact Mary Sasser at (979) 845-1121, mary@otsc.tamu.edu, for more information. The registration fee (\$750) covers the cost of course materials and instruction.



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Course Schedule

Week	Topic	Assignment	Due Date
Unit I - Introduction to Quality Systems			
1 Sept. 1 - 7	Laboratory Quality Systems-Overview Using Statistical Procedures to Analyze Laboratory Data	Self-Introduction	9/8/14
<i>Martin Luther King, Jr. Day January 20</i>			
2 Sept. 8 - 14	Statistical Procedures, cont.		
3 Sept. 15 - 21	Statistical Procedures, cont.	Homework 1 (Statistics)	9/22/14
Unit II Validation of Analytical Procedures			
4 Sept. 22 - 28	Validation of Analytical Procedures: Microbiology	Homework 2 (AOAC)	9/29/14
5 Sept. 29 - Oct. 5	Validation of Analytical Procedures: Instrumental	Homework 3 (Method Evaluation)	10/6/14
6 Oct. 6 - 12	Validation of Analytical Procedures: Spectroscopy		
7 Oct. 13 - 19	Validation of Analytical Procedures: Rapid Methods	Midterm	10/20/14
Unit III – ISO Procedures and Implementation			
8 Oct. 20 - 26	ISO 17025 Framework and Accreditation	Homework 4 (SOP)	10/27/14
<i>Spring Break: March 10 - 16</i>			
9 Oct. 27 – Nov. 2	The Big Three: Traceability, Proficiency Testing & Uncertainty	Discussion	11/3/14
10 Nov. 3 – 9	Quality Control Procedures		
11 Nov. 10 - 16	Quality Control Procedures, cont.	Homework 5 (Corrective Actions)	11/17/14
Unit IV – Laboratory Management			
12 Nov. 17 - 23	Laboratory Management Principles Technology Strategy		
13 Nov. 24 – 30	Capital Budgeting, Working Capital, & Enterprise Budgets	Homework 6 (Capital Budgeting)	12/1/14
14 Dec. 1 - 7	Benchmarking, Teams in the Workplace, & Research Compliance	Final Exam	12/8/14