



Food and Agriculture Organization
of the United Nations



Announcement

A Joint FAO-TAMU On-line Course on Laboratory Quality Control Systems (May 31st to August 8, 2016)

FAO invites applications for participation in an on-line course on '*Laboratory Quality Systems*' offered by Texas A&M University (TAMU).

Deadline for submission of the application: 15 April 2016.

Minimum education requirement: Masters in Animal Science/Biochemistry/Chemistry/Feed Science.

Other essential requirements: The candidate must be employed and responsible for the laboratory operation and analyses.

Technology requirements: The candidate must have access to:

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

Cost: The participation fee for the course (US\$750) covers the cost of instruction, mailing, and materials. **Under a special arrangement, candidates selected to participate will be sponsored by Texas A&M University, and no participation fee will be charged from the candidate or the organization to which s/he belongs.** *However, in the event of dropping out of the candidate from the course, the candidate or the organization to which the candidate belongs will have to pay an amount of US\$ 500.*

Procedure for submission of the application: Please submit a one-page motivation letter giving reasons for undertaking this course and how the knowledge gained will be used. Also include the following information in your letter:

- First name
- Last name
- Physical mailing address for FedEx deliveries
- Phone number
- Email address

The motivation letter should be accompanied by a scanned copy of a time and resource commitment letter from your Director/Head of the organization.

The course will be administered by Dr. Tim Herrman, Professor, State Chemist and Director Office of the Texas, TAMU, USA.

The places for the course are limited. The application can be submitted electronically, at your earliest convenience, but not later than 15 April 2016 to: Harinder.makkar@fao.org

The successful candidates will be informed of their selection by 15 May 2016. The selection will be based on the requirements listed above, the motivation letter from the candidate and the letter from the Director/Head of the institution in which the candidate is employed. Preference will be given to laboratories that have participated in Proficiency (Ring) tests coordinated by FAO.

COURSE DESCRIPTION

Quality systems and method development used within a laboratory; ensuring the integrity of procedures used in lab processes, chain of custody, information management, and international laboratory standards; regulatory requirements for laboratory operation; bio-security precautions; and laboratory management. Course schedule is given below.

Time candidates need to devote: About 8 hours per week, any time of the week at your convenience.

Course Goals

After completing this course, candidates will possess a practical knowledge of the standard laboratory practices and quality systems required to oversee a scientific laboratory's quality management program. This course is intended to equip the candidate with the breadth of knowledge needed to obtain laboratory data and results that are reliable, interpretable, repeatable, and defensible. Candidates will possess the capability to participate on a laboratory management team including budgeting and forming a technology strategy.

Key Topics

This course will address the following topics:

- Ensuring Validity and Reliability
- Laboratory Procedures
- Quality Assurance: Procedures, Tools & Methods
- Laboratory Management

Course Tools

All course materials and activities will be presented using the eCampus Learning Management System. You access eCampus by logging into <http://ecampus.tamu.edu>

Class Readings

Most readings will be available in Blackboard in .pdf format. Other readings will be available online, with a hyperlink provided in Blackboard.

Course Presentations

Weekly materials will be presented using a variety of formats, including online slide presentations, audio, and videos.

Exams and Certificate

A midterm and final exam will be administered through the course management system. On successful completion of the course a certificate will be sent to the candidate.

Homework/Discussions

Course discussions and homework will be used to assess your understanding of concepts throughout the course and address the following topics:

- Statistical Process Control
- Developing a Standard Operating Procedure (SOP)
- Corrective/Preventative Actions
- Method Validation

Grading

Your grades will be determined as follows:

Discussions	10% of total grade
Exams	30% of total grade
Homework	60% of total grade

A certificate will be issued on successful completion of the course

Grading Policy

Class assignments, quizzes, and exams must be completed on the dates set by the instructor on the course website unless prior approval has been granted by the instructor.

Attendance, Homework and Make-up Exam Policy

Due to the participatory nature of this Web-based class, regular log-in to the course Web site is expected.



FAO- TAMU LABORATORY QUALITY SYSTEMS

MAY 31ST – AUGUST 8TH, 2016

ONLINE PROFESSIONAL EDUCATION

Course Schedule

Week	Topic	Assignments
Unit I - Introduction to Quality Systems		
1	Laboratory Quality Systems-Overview	Self-Introduction
	Using Statistical Procedures to Analyze Laboratory Data	Discussion topic
2	Using Statistical Procedures to Analyze Laboratory Data, cont.	Homework 1
Unit II Validation of Analytical Procedures		
3	Validation of Analytical Procedures: Microbiology	Homework 2
4	Validation of Analytical Procedures: Rapid Methods	Homework 3 Discussion topic
5	Validation of Analytical Procedures: Instrumental	Midterm
Unit III – ISO Procedures and Implementation		
6	ISO 17025 Framework and Accreditation <ul style="list-style-type: none">• Documents and Records• SOPs	Homework 4
7	The Big Three <ul style="list-style-type: none">• Traceability• Proficiency Testing• Uncertainty	Discussion

8	Quality Control Procedures <ul style="list-style-type: none"> • Corrective actions • Control of Non-conforming work • Instrument Calibration and Maintenance • Training 	Homework
Unit IV – Laboratory Management		
9	Laboratory Management Principles Research Compliance Technology Strategy	Homework 6
10	Reporting Results Sampling & Handling Evidence Laboratory Information Management	Final Exam Discussion topic