Food and Agriculture Organization of the United Nations

TEXAS A&M UNIVERSITY

Announcement

A Joint FAO-TAMU On-line Course on Laboratory Quality Systems
(September 2 – November 8, 2019)

The Food and Agriculture Organization (FAO) invites applications for participation in an online course, '*Laboratory Quality Systems*', offered by Texas A&M University (TAMU).

Deadline for submission of the application
August 12, 2019

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

Other essential requirements
Candidate must be employed and responsible for the laboratory operation and analyses.

Technology requirements

- A computer that is less than 4 years old;
- Reliable high-speed Internet connection (cable/DSL or better) with an updated browser;
- Software such as Microsoft Word, PowerPoint & Excel 2003-2013 or equivalent;
- Common plug-ins (e.g., Adobe Reader, Flash Player, virus protection, etc.); and
- Microphone and speakers.

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

Application submission procedure
Submit application by email to Feed-Quality-Control@fao.org with the following content:

1) Write and submit a one-page motivation letter explaining why you wish to take this course and how you will apply the knowledge gained. Include in your letter:
   - First name
   - Last name
   - Phone number
   - Email address

2) Include a scanned copy of a time and resource commitment from your Director/Head of your organization with his/her signature.

Applicant notification
Successful candidates will be informed of their selection by August 19, 2019. 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. Spaces in the course are limited.

COURSE DESCRIPTION

Overview
After completing this course, you will:

- Gain practical knowledge of quality controls tools and systems required to oversee a laboratory's quality management program,
- Acquire the breadth of knowledge needed to obtain laboratory results that are reliable, accurate, interpretable, repeatable, defensible and timely,
- Be able to successfully participate on a laboratory management team including budgeting and developing a technology strategy.

The course will be in **English** and its schedule is included below. The course will address, among others, the following topics:

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

Time Commitment
About 8 hours per week

Course Tools
All course materials and activities will be presented using Texas A&M University's learning management system. Details will be provided to participants before the start of the course

Class Readings
Most readings will be available in the learning management system in .pdf format. Other readings will be available online, with a hyperlink provided in the learning management system.

Lecture Presentations
Weekly materials presented, using a variety of formats including on-line narrated Power Point slide presentations and videos, will facilitate students' learning experience.

Homework/Discussions
Weekly course assignments conducted as a discussion or homework will assist in understanding of the main concepts. These include, among others, statistical process control, developing standard operating procedures (SOP), corrective/preventive actions and methods of validation

Grading
Your grades will be determined as follows:

Discussions (3)	30 pts
Homework (6)	70 pts

Grading Policy
Due to the participatory nature of this web-based class, regular log-in to the learning management system is expected. Completion of the course assignments and a score $\geq$70% is required to receive a certificate.

Instructor information:
Dr. Tim Herrman
Professor, Department of Soil and Crop Science, Texas A&M University, USA

State Chemist and Director, Office of the Texas State Chemist, USA

Participants will receive a certificate upon successful completion of the course.

A Joint FAO-TAMU On-line Course on Laboratory Quality Systems
(September 2 – November 8, 2019)
Course Schedule

Week (Dates)	Topics	Assignments/Due Dates
Unit I - Laboratory Quality System Structure		
1 Sept 2 – 8, 2019	Laboratory Quality Systems-Overview ; Laboratory Standards	Self-Introduction; Discussion #1 – Due Sept 9, 2019
2 Sept 9 - 15, 2019	ISO 17025 Requirements; Laboratory Accreditation	Homework #1 – Due Sept 16, 2019
Unit II- Laboratory Quality Control Techniques		
3 Sept 16 - 22, 2019	Quality Control Techniques The Big Three • Traceability • Proficiency Testing • Uncertainty	Homework #2 – Due Sept 23, 2019
4 Sept 23 - 29, 2019	Quality Control Procedures • Chain of Custody • Control of Non-conforming work Recording and Reporting for Quality Assurance	Homework #3 – Due Sept 30, 2019
5 Sept 30 – Oct 6, 2019	Statistical Process Control	Homework #4 – Due Oct 7, 2019
Unit III – Method Validation		
6 Oct 7 – 13, 2019	Validation of Analytical Procedures	

7 Oct 14 – 20, 2019	Validation of Microbiological Procedures & Chemical Procedures, Spectroscopic Procedures and Rapid Methods	Homework #5 –Due Oct 21, 2019
8 Oct 21 – 27, 2019	Validation of Spectroscopic Procedures and Rapid Methods	Discussion #2 – Due Oct 28, 2019
Unit IV – Laboratory Quality Management		
9 Oct 28 – Nov 3, 2019	Concept of Quality Management; Technology Strategy; Budgeting; Benchmarking	Homework #6 – Due Nov 4, 2019
10 Nov 4 – 8, 2019	Laboratory Networks ; Laboratory Safety; Risk Assessment	Discussion #3 – Due Nov 8, 2019