

Course title and number SCSC 634 Regulatory Science Principles & Practices in Food Systems
Term Fall 2016
Meeting times and location Online

Course Description and Prerequisites

Regulatory tools, standards and practices to improve the protection and compliance of regulated systems; interdependence of regulatory agencies; models of risk analysis with emphasis on conducting a qualitative and quantitative risk assessment; and implications of compliance.

Learning Outcomes

After completing this course, students will possess a practical knowledge of how to apply risk analysis to hazards in regulated products. The course is intended to equip students with the breadth of knowledge needed to participate in policy development and manage risk at a corporate and government level, as well as utilize standards to evaluate conformance based on regulatory science principles.

Key Topics

This course will address the following topics:

- Emerging Field of Regulatory Science
- Regulatory Policy
- Role of Risk Analysis in Regulatory Science
- Conducting a Risk Assessment
- Current Issues and Problems

Instructor Information

Name Dr. Tim Herrman, Professor
[Department of Soil & Crop Sciences](#)
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Office hours By Appointment

Office location Office of the Texas State Chemist, 445 Agronomy Rd, TAMU

Textbook and/or Resource Materials

No Required Textbooks. Course readings will be taken from other reference materials including government publications and standards. Most readings will be available in eCampus in .pdf format. Other readings will be available online, with a hyperlink provided in eCampus. Online slide presentations with audio for each module can be accessed from eCampus. The slides for each presentation will be provided as a .pdf file which can be downloaded and printed.

Grading Policies

Grades will be determined as follows:

4 Quizzes	20 points
5 Homeworks	25 points
4 Discussions	20 points
Project # 1	20 points
<u>Project #2</u>	<u>20 points</u>
Total points possible	105

Grades Breakdown:

A	90+ points
B	80 - 89 points
C	70 - 79 points
D	60 - 69 points
F	<60 points

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

Quizzes

There will be 4 quizzes on readings and presentations throughout the course. All quizzes will be administered through the course management system.

Discussions

Course discussions will be held on the discussion forum on the course management system. These discussions are good way for you to communicate with other students and the instructor and to share ideas and insights. Your responses to the questions posted to the discussion board will be evaluated and included in your final grade. (For more information, see Guidelines for Online Discussion Participation on eCampus) If you need an immediate answer, please e-mail me directly.

Homework

Applying a model for risk assessment using DecisionTools Suite

Projects

Project # 1 - Perform a Qualitative Risk Assessment

Project # 2 - Perform a Quantitative Risk Assessment

Course Topics, Calendar of Activities, Major Assignment Dates

Week	Topic	Assignments	Due Date
Unit 1 – Emerging Field of Regulatory Science			
1 Aug. 29 – Sept. 4	What is Regulatory Science; Origins and Rationale behind US FDC Act;	Self-intro. Quiz	09/05/16
2 Sept. 5 – 11	Other US food safety agencies, laws, and regulations	Quiz	09/12/16
Unit 2 – Regulatory Policy			
3 Sept. 12 - 18	US Food Policy	Discussion	09/19/16
4 Sept. 19 - 25	Integrated Food Safety System; Globalization and Trade	Quiz	09/26/16
Unit 3 –Risk Analysis and Food Protection System			
5 Sept. 26 - Oct. 2	Risk and Uncertainty; Risk Analysis – FAO/WHO Model	Discussion	10/03/16
6 Oct. 3 - 9	Risk Analysis – OIE Model, NAS-NRC Model Risk Assessment - OIE	Quiz	10/10/16
Unit 4 – Probability Distribution and Risk Assessment			
7 Oct. 10 - 16	Introduction to @ Risk Probability Principles Review Binomial Process	Homework	10/17/16
8 Oct. 17 - 23	Poisson and Hypergeometric Processes Normal Distribution, Central Limit Theorem	Homework	10/24/16
Unit 5 – Risk Assessment Modeling			
9 Oct. 24 – 30	Risk Assessment Modeling; Probabilistic Scenario Modeling; Introduction to Precision Tree	Homework	10/31/16
10 Oct. 31 – Nov. 6	Infectious Disease Modeling	Homework Class Project	11/07/16
11 Nov. 7 - 13	Dose Response	Homework	11/14/16
12 Nov. 14 – 20	Bootstrap and Bayesian Modeling	Discussion	11/21/16

Unit 6 – Current Issues and Problems			
13 Nov. 21 – 27	Whose science should we use?		11/28/16
14 Nov. 28 – Dec 4	Social and Economic Implications of Compliance	Discussion	12/05/16
15 Dec. 5 - 7		Class Project	12/12/16

Other Pertinent Course Information

Course Tools:

All course materials and activities will be presented using the Blackboard Learning Management System. Access eCampus by logging into <http://ecampus.tamu.edu> with your TAMU Net ID and password.

Technology Requirements

To ensure successful participation, 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.

Instructor/Student Communication

Please send all e-mails to the email address: tjh@otsc.tamu.edu. I will not be using the eCampus Mail Tool. All student communication will be sent via TAMU email accounts (<http://gateway.tamu.edu>) unless you provide a preferred email address to the instructor.

Post any questions you have about the material to the discussion board so other students can respond to it and/or benefit from the ensuing discussion. I will be reading the discussion board and will reply to messages when necessary.

Copyright

Course packets and all other materials generated and/or used during this course are copyrighted. Because these materials are copyrighted, you do not have the right to copy the course packets, unless the instructor expressly grants permission.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>.

Academic Integrity

For additional information please visit: <http://aggiehonor.tamu.edu>

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”