Syllabus:

TITLE: Risk Assessment for Food, Agriculture, and Veterinary Medicine (Agron/VDPAM 570X)

INSTRUCTORS: Jeff Wolt  Scott Hurd
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TEXT: No formal text; class handouts supplemented with selected literature readings.

COURSE ACTIVITIES:
Lecture, discussion, literature readings, 1 writing assignment, and a term project. Students will design, conduct, and present a quantitative risk assessment based on an approved topic of interest. (Topic selection by mid-semester with presentations given in lieu of the final examination.) A series of computer laboratory sessions will be used to introduce quantitative methods for risk assessment.

GRADING:
Six class problems (10% each)  60%
Class participation  10%
Project  30%
(5% - First presentation, 10% – Final presentation; 5% – Draft report, 10% – Final report)

Letter grades will be assigned based on a scale no harsher than straight percentages of 100-90%
A range, 89-80% B range, etc.; however, we reserve the right to use a more lenient grading scale.

TOPICS:
Risk Assessment: History and Perspective
Tools of Risk Assessment
  Statistics
  Epidemiology
  Microbiology
  Toxicology
  Systems Analysis
The Risk Assessment Process
  Problem Formulation
  Model building
  Effects Characterization
  Exposure Characterization
  Risk Characterization
Policy and Regulation
  Risk-Benefit Tradeoffs
  Ethics and Risk Assessment
Quantitative Risk Assessment
  Introduction to quantitative methods of risk assessment
  Data sources and estimation
  Deterministic risk assessment
  Stochastic risk assessment
  Distributional analysis
  Introduction to Forecasting
Lab sessions and problems

Case studies (subject to change)
- Human Health Assessment: Dietary exposure and risk assessment
- Animal Health Risk Assessment: Food Safety
- Ecological Risk Assessment: Nontarget organisms
- Gene flow and Pollen Confinement
- Macrolides and Livestock

STUDENTS WITH DISABILITIES:
If you have a documented disability and anticipate needing accommodations in this course, please make arrangements with your instructors. Please request that a Disability Resources staff send a SAAR form verifying your disability and specifying the accommodation you will need.