

ENVH 593 Current Topics in Risk

Fall 2007 Risk Management: Strategies for Better Decisions

- Understand fundamentals of integrated risk assessment and management
- Learn how techniques for evaluation of risk and consequences for human health and the environment are utilized in risk management decisions
- Gain further understanding of stakeholder perspectives and interactions
- Develop strategies to deal with the scientific uncertainties involved in risk management
- Develop skills to assess and manage risk through case studies and simulations

Spring 2007 Defining Sensitive Populations: Lessons Learned With Pharmacogenomics (Or did we miss our lessons from the Princess and the Pea?)

- Develop knowledge about pharmacogenomics and how it has been used to identify sensitive populations
- Analyze case studies to see the magnitude, diversity and successes in using genomic data in pharmacology
- Evaluate how it has been used for clinical drug management. Determine if there are critical data gaps in its application. Determine its applicability for defining sensitive populations in Environmental and Occupational Health

Fall 2006 Case Studies in Risk Assessment: Ethics and Conflict of Interest

- Explore the complexities of establishing expert input into risk assessments across agencies
- Discuss the importance of peer review and its pros and cons
- Explore the issues of ethics within the context of risk assessment
- Articulate challenges in establishing independent peer review
- Discuss case studies involving accusations of conflicts of interest
- Approaches in case studies in reconciling push from funding bodies and pull from communities

Spring 2006 Cultural Considerations in Risk Assessment and Management

- Discuss the range of cultural factors that should be considered by risk assessors and managers
- Exploration of methods for defining an “acceptable” contaminant level within a broader culturally sensitive context
- Discuss the importance of government-to-government relations
- Consider environmental justice within a cultural context
- Identify approaches for providing social and cultural context for human health risk evaluations

Winter 2006 Risk Management: Strategies for International Cooperation

- This class will focus on processes and methods of international environmental decisions

- We will take an in-depth look at the Millennium Ecosystem Assessment (MA)
- Understand the complexities of international environmental risk management decisions
- Examine different approaches to these decisions (specifically those approaches taken by the EU and UN, among others)
- Gain further understanding of stakeholder perspectives and interactions

Fall 2005 Use of Exposure Biomarkers in Risk Assessment

Co-taught with Alon Peretz

- General overview of Biomarkers
- Metabolites
- Exposure Biomarkers: Arsenic and Lead
- Guest speaker: Dr. Michael Morgan – Biological Exposure Indices
- Temporal aspects of biomarkers and patterns of exposure

Spring 2005 Risk Management: Strategies for Better Decisions

- Approaches to Environmental Decision Making
- Community Participation and Dialogue
- Economic Considerations
- Corporate Approaches
- Institutional Infrastructure

Winter 2005 Use of Biomarkers in Risk Assessment and Policy

- General overview of Biomarkers
- Aflatoxin Case Study
- Case study: Metals and occupational biomarkers Student presentations
- Case study: Pesticides and susceptibility/variability
- Case study: Asthma and child health

Fall 2004 Incorporating “Omic” Information into Risk Assessment and Policy

- The “-omic” Revolution’s impact on Toxicology
- Current Applications in Risk Assessment
- Current Incorporation into Policy
- Future Impacts of “-omic” tools

Spring 2004 Databases for Environmental Risk Management

- Co-taught with Christie Drew
- Databases about PCBs in Puget Sound (Kellie Faye)
- Database evaluation criteria; presentation and discussion (Christie Drew)
- Exposure databases (Nancy Judd)
- Revisit database evaluation criteria.

Winter 2004 Risk Management & Risk Policy

- Case studies focused on the theme of precautionary principle.

- Fisheries, Radiation, Benzene, Asbestos, PCB's Halocarbons, DES, Antimicrobials, Sulphur dioxide, MTBE in petrol, chemical contamination of the Great Lakes, Tributyltin, hormones as growth promoters, and/or 'Mad cow disease'.

Fall 2003 Risk Communication

Co-taught with Christie Drew

- Discussion of risk frameworks that impact risk communication
- Visualizing risk
- Risk Perception/Cross Cultural Issues
- Media/General Public
- Risk communication in context of right to know / right to understand
- Children and Uncertainty

Winter 2003 Special Emphasis on Exposure Analysis: Case Studies

- Co-taught with Noah Seixas
- Case studies: Diesel and Chlorpyrifos

Fall 2002 Bio-ethical, Social, and Legal Issues in Risk Assessment

Co-taught with Gilbert

- Issues Raised by New Understanding in Toxicology
- Bioethics
- Toxicology or Benefit
- Balancing Public Policy in the Face of Uncertainty
- Worker protection? Risk of Berylliosis from Berillium Exposure – Issues of Exposure and Genetic Susceptibility
- Controlled Human Exposure Studies
- Role of GAO in Balancing National Resources: Ensuring Independence and Balance
- Right to Know vs. Right to Understand: Ethical issues in Risk Communication
- Money-Funding Issues
- Summing up – Toxicology: Ethical, Legal and Social Issues

Spring 2002 Focus on Community Health Issues

- International Children's Health Conference
- Discussion of EDF Website and TRI data
- International Activities in Hazardous Waste
- Community Risk Profiles: Introduction
- Case Study: Silicon Valley
- Case Study: Evaluating Environment Equity in Allegheny County

Fall 2001 Current Topics: Risk Assessment

- Swiss Scenario based assessment approaches for multi-use chemicals (Griffith)
- International Risk Models (Wong)

- Faustman – Transgenic Animal Models
- Mixtures (Judd)
- Benzene Article (Frick)
- Hoeft
- Bekris

Spring 2001 Concepts and Advances in Risk Assessment

- Risk Updates from SOT (Faustman)
- Understand basic and advanced risk assessment methods
- Learn about new approaches for using biomarker information for making occupational surveillance decisions
- Obtain updates on Reproductive and Developmental Risk Assessment Resources
- Improve your understanding of statistical concepts used in risk assessments
- Learn the basics of pharmacokinetics

Winter 2001 Current Concepts in Risk

- European Exposure Models

Fall 2000 Risk Assessment Journal Club

- Winslow Article (Eva Wong)
- Nancy Judd
- Lynn Bekris
- Robert Leo

Fall 1999 Current Concepts in Risk Assessment

- “Distributions Selected for Use in Probabilistic Human Health Risk Assessments in Oregon” (B. Griffiths)
- Exposure Factors (E. Wong)
- E. Schneider
- Chang-fu Wu
- Shengli Shi
- Kai Elgethn
- Indoor House Dust (Wilder)

Winter 1999 Risk Assessment Journal Club

- Cumulative Risk: Issues for Exposure and Toxicology assessment
- Cancer Guidelines
- Demonstration of a Toxicological Risk Ranking Method to Correlate...
- Exposure to Toxic Air Contaminants in Env. Tobacco Smoke
- Measuring Ecological Health, Assessing Ecological Risks: Using the Index of Biological Integrity at Hanford.
- Toxic Equivalency Factors for PCB's, PCDD's ,PCDF's, for Humans and Wildlife