American Chemistry Council | Center for the Polyurethanes Industry

PU 200: AI Governance and Practical Use in Chemistry

AI Governance

i. Introduction
   o Welcome, course overview, and objectives
ii. Understanding AI Governance
   o Definition and importance of AI governance
   o Key principles and frameworks
iii. Ethical Considerations
   o Privacy, consent, and ethical data use
   o Addressing bias and fairness in AI
iv. Regulatory Landscape
   o Overview of current regulations and standards
   o Compliance requirements for AI applications
v. Q&A and Discussion
vi. Open floor for questions and discussion on AI governance topics

Hands-on AI Use in Chemistry and Polyurethanes

i. Introduction to AI Tools
   o Overview of popular AI tools and platforms.
   o Brief demo of a simple AI tool (e.g., Google's Teachable Machine)
ii. Hands-On Mini-Project: AI in Polyurethane Production
   o Participants use an online tool or platform (like RunwayML or Hugging Face Spaces) to simulate an AI application in polyurethane production.
   o Example project: Using AI to optimize a polyurethane formulation for specific properties (e.g., flexibility, durability).
   o Step-by-step guidance through the process.
iii. Review and Future Outlook
   o Recap of key points from the session.
   o Quick overview of future trends in AI and potential career paths in the chemical industry.

Questions

   o Open floor for questions and feedback on course content and delivery.