

Career Cluster	CTE Focus Area	AI Literacy Integration	Future Babbage Lesson
Information Technology	Programming, Systems Management, Cybersecurity	Students learn how algorithms process data and how to secure AI systems ethically.	“Intro to Machine Learning: Training a Simple Model Safely”
Science, Technology, Engineering & Mathematics (STEM)	Data Science, Robotics, Research Methods	AI used as a data analysis and simulation tool to model complex systems.	“Predicting Climate Trends Using AI Tools”
Health Science	Medical Informatics, Diagnostics, Bioethics	Exploring how AI assists in medical imaging, diagnosis, and patient privacy.	“AI and Healthcare: Balancing Innovation and Ethics”
Business Management & Administration	Decision Systems, Analytics, Entrepreneurship	Understanding how AI informs business decisions and process automation.	“AI in Business: Forecasting and Strategy Simulation”
Marketing	Market Research, Consumer Behavior, Digital Marketing	Using AI for trend analysis and targeted campaigns while examining data ethics.	“The Algorithm Behind Recommendations”
Finance	Risk Analysis, FinTech, Compliance	AI’s role in fraud detection, forecasting, and ethical financial automation.	“Predicting Market Trends with AI Models”
Education & Training	Instructional Design, Educational Technology	Teachers use AI to differentiate instruction while maintaining IDEA compliance.	“Designing AI-Assisted Lesson Plans Responsibly”
Arts, A/V Technology & Communications	Digital Media, Design Thinking	Using generative AI for art, music, and storytelling while discussing originality.	“Creating and Crediting AI Art”

<b>Government &amp; Public Administration</b>	Data Policy, Civic Technology	Understanding how AI affects governance, surveillance, and citizen data.	“AI and Civic Responsibility”
<b>Law, Public Safety, Corrections &amp; Security</b>	Forensics, Legal Tech, Ethics	Case studies on AI bias in criminal justice and predictive policing.	“AI Ethics in Law Enforcement”
<b>Transportation, Distribution &amp; Logistics</b>	Automation, Smart Infrastructure	Exploring autonomous systems and logistics optimization.	“AI in Autonomous Vehicles: Safety and Design”
<b>Manufacturing</b>	Automation, Process Control, Quality Systems	AI for predictive maintenance and robotics in production lines.	“Smart Manufacturing Simulation”
<b>Agriculture, Food &amp; Natural Resources</b>	AgTech, Environmental AI	Using AI for crop monitoring, sustainability, and resource management.	“AI in Agriculture: Drones and Data”
<b>Human Services</b>	Psychology, Counseling, Social Support	Exploring how AI tools affect empathy, care, and emotional analysis.	“Can Machines Understand Feelings?”
<b>Hospitality &amp; Tourism</b>	Service Automation, Experience Design	AI in customer service, personalization, and travel planning.	“Building a Smart Tourism App”
<b>Architecture &amp; Construction</b>	Smart Design, Project Modeling	Using AI for safety planning, energy optimization, and blueprint automation.	“Designing Sustainable Buildings with AI Tools”