Faculty In-Service Day • May 17, 2024

PM Workshop Session (12:40P-2:10P) • B-24, Room 202

Title: 3D Printing for your Program!

Presenters: Nate Baker

Description: Learn about the new, non-industrial 3D Printing technologies that have/are being acquired by the MET program, and how you and your students can learn and use them going forward! See examples of parts and 3D Printers for Medical, Dental, Culinary, Pastry, Construction, & more industries!

Engagement Practice(s) Employed: Experiential Learning

A variant of active learning that stresses hands-on experiences, often outside the walls of the classroom. Often used to describe the pedagogy behind service learning, internships, study-abroad, and co-curricular activities.

How the presenter will use this practice:

Introduction to 3D Printing: The presenter will provide a clear explanation of how 3D printing technology works, covering the basics of the process and materials used.

Hands-On Exploration: Faculty will have the opportunity to directly interact with 3D printers, potentially creating simple objects or observing the printing process.

Tangible Examples: The presenter will showcase a variety of 3D-printed items across different industries, illustrating the breadth of applications.

Guided Brainstorming: The presenter will lead an open discussion about potential uses of 3D printing in various academic programs, encouraging participants to share ideas and consider unique ways to integrate it into their teaching.

Adopting this practice in the classroom:

Gagne's 9 Events for Lesson Planning: Teachers can use Gagne's framework to structure engaging and effective lessons across subjects. Consider creating templates or checklists to integrate the steps into your planning process.

Multi-Tasking with Discussion: Incorporate background discussions while students work independently. Guide small groups through problem-solving or brainstorming while others are engaged in project work or practice tasks.

Personalized Learning Paths: Offer options for how students demonstrate understanding. This might include choice in project format, presentation style, or the depth of exploration within a topic.

Assessment Strategies or Key Take-Aways:

Reflection: Ask participants to reflect on barriers they might face when implementing 3D printing in their programs and brainstorm solutions.

Understanding 3D Printing Potential: Participants leave with a basic grasp of the technology and its varied applications.

Spark of Imagination: Participants feel inspired to explore ways 3D printing can enhance learning in their own disciplines.

Actionable Next Steps: Participants have a starting point for implementing 3D printing, whether it's planning a lesson, researching equipment, or seeking further professional development.

Supportive Network: The presentation fosters a sense of community among faculty interested in incorporating 3D printing, encouraging collaboration and ongoing support.