R 3D PRINTING
ARIATION WORKSHOP

Saturday, June 30, 2018
Registration 8:00 - 9:00am  |  Workshop 9:00 - 4:00 pm  |  5.5 contact hours certification
Sanford Coyote Sports Center, Room A355

WORKSHOP DESCRIPTION
Introduction to digital design (Tinkercad) and fabrication (using consumer-level, FFF 3D printers).
Participants will learn how to acquire, prepare, 3D print, and analyze 3D printed models with applications in occupational therapy education and practice.

LEARNING OBJECTIVES
1. Discuss the benefits and applications of digital design and fabrication (3D printing) in occupational therapy.
2. Create a custom digital model using 3D modeling software.
3. Operate a desktop 3D printer to create a device from a model downloaded from an online repository.
4. Analyze 3D printed assistive devices for safety and functionality.

THE PRESENTER
J. Robin Janson, OTD, OTR, CHT is a Clinical Assistant Professor at Indiana University’s Department of Occupational Therapy. Degrees earned consist of a BS in Occupational Therapy (IU 1989), MS in Health Sciences Education (IU 2004) and a post-professional Doctorate in Occupational Therapy (IU 2016). She is a certified hand therapist (initially certified in 1994) and has over sixteen years’ clinical experience (eight years full-time and eight years part-time). As an OT educator, Robin has twenty years’ experience serving in various positions including adjunct, academic fieldwork coordinator, and currently, as a clinical assistant professor. Her publications include: Wrist Extension or Flexion Mobilization Orthosis: The Dinosaur Design by Arnold & Janson (Journal of Hand Therapy, 2017); Hand and Upper Extremity Splinting: Principles and Methods by Fess, Gettle, Philips and Janson (Elsevier, 2005); and 3D Printing: Shaping the Future of OT Practice (AOTA Technology SIS, 2015). Robin has given five national, three state and five campus level presentations on the topic of 3D printing and applications in occupational therapy. In her personal time, she enjoys outdoor activities (kayaking, camping, and hiking) with her family, spending time with her dogs (cavalier king charles spaniels), and 3D printing.

SCHEDULE
8:00 - 9:00 – Registration
9:00 - 12:00 – Morning Topics
Introductions & Presenter’s 3D Printing Experience
Introduction to Additive Manufacturing - 3D Printing (history & overview)
The 3D Printing Process – A Case Example (Plastic Cap Wrench)
Experiential – 3D Printing the Plastic Cap Wrench
3D Printers & Materials
Acquiring Digital Models (Download, Design & Scan)
12:00 - 1:30 – Lunch
1:30 - 400 – Afternoon Topics
Experiential – Introduction to Tinkercad
Experiential – Using Printer Control/Slicer Software to Prepare Prints
Print Post-Processing and Analysis
Examples of 3D Printing Projects in OT Education
Special Considerations
Resources

Please return registration form with payment to:
USD Occupational Therapy
414 East Clark Street - SCSC A375A
Vermillion, SD 57069

Registration is due June 20, 2018