

# Robotics Design and Innovation (2025)

## Safety

- 1 Demonstrate safety hazards and application of safe work practices when working with industrial equipment and hand tools. 4728.D1.1

## Career Exploration

- 1 Communicate an occupation one could expect to obtain, and the skills needed in the fourth industrial revolution. 4728.D2.1

## Smart Manufacturing and Digital Integration

- 1 Differentiate between additive and subtractive manufacturing. 4728.D3.1
- 2 Execute software at an introductory level for graphical communication. 4728.D3.2
- 3 Produce a production part that utilizes advanced manufacturing processes as a team member. 4728.D3.3
- 4 Describe how components in modern manufacturing facilities work and communicate with each other. 4728.D3.4
- 5 Create a simple handling tool program using an industrial robot. 4728.D3.5
- 6 Recall fundamental content to meet/exceed the cut-score for the SACA (Smart Automation Certification Alliance) C-102 - Certified Industry 4.0 Associate II - Advanced Operations - Silver Certification. 4728.D3.6
- 7 Demonstrate skills to obtain the SACA C-102 - Certified Industry 4.0 Associate II - Advanced Operations - Gold Certification at a 100% skill standard. 4728.D3.7
- 8 Demonstrate the ability to create and interpret technical documents. 4728.D3.8
- 9 Demonstrate ability to use various types of software applicable to the course. 4728.D3.9