Community Colleges of Spokane
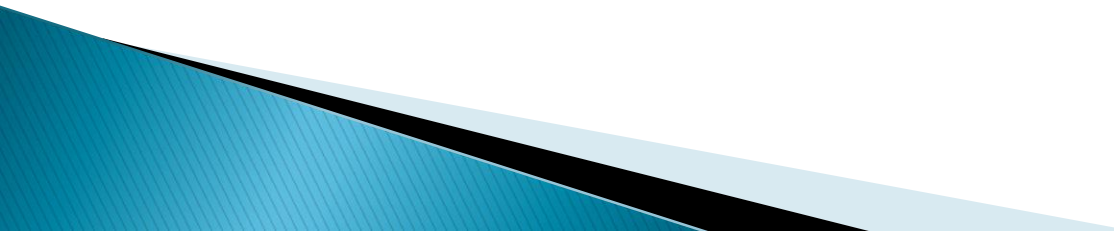
Spokane Community College
Manufacturing Related Programs
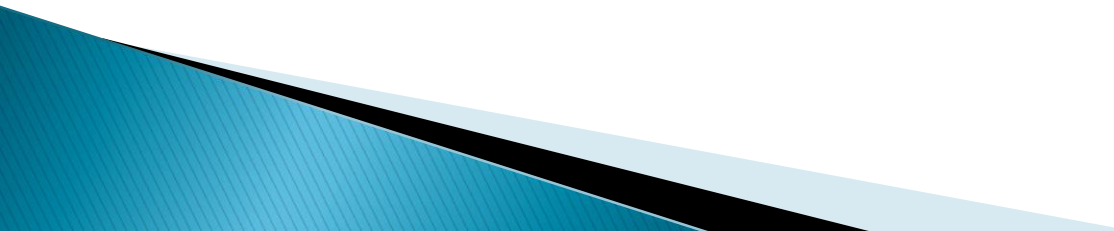
❑ About Spokane Community College (SCC)

   ❖ 1of the 2 colleges that make up Community Colleges of Spokane district
   ❖ Located in Spokane with a service area of Spokane County, Stevens County, Whitman County, Ferry County, and Pend Oreille County
   ❖ Serving over 22,000 individual students annually
   ❖ Awarding over 2,200 degrees and certificates each year
   ❖ Accredited with the NWCCU

Spokane Community College
Manufacturing Related Programs

- Apprenticeship
- Architectural Technology
- Automotive Technology/General
- Automotive Technology Toyota T-TEN
- Automotive Technology Collision Repair
- Aviation Maintenance Technology
- CAD Mechanical Design and Drafting
- Composites Technology
- Electrical Maintenance and Automation
- Electronics/Biomed/Avionics/Data Communications
- Heavy Equipment Technology
- Hydraulics/Pneumatics/Automation Technology
- Heating/Ventilation/Air Conditioning/Refrigeration
- Machining/Computer Numerical Control (CNC) Technology
- Welding and Fabrication Technology

Spokane Community College Advisory Councils

- ❑ Each Professional/Technical program is required to have an industry advisory council
- ❑ Council membership is comprised of employers, industry experts and program graduates
- ❑ The council provides recommendations on curriculum revisions, content upgrades and emerging technologies
- ❑ Advisory councils are considered a critical component of keeping programs current, responsive and competitive.

Spokane Community College
Manufacturing Focused Programs

❑ Aviation Maintenance Technology

❖ FAA Part 147 accreditation

❖ Approximately 35 program completers annually

❖ 90+% initial employment rate for completers

❖ Graduates qualify to take the FAA examinations for Airframe and Powerplant Licenses

❖ 1900 clock hours of instruction

  ❖ General applications 400 hours
  ❖ Airframe systems 750 hours
  ❖ Powerplant systems 750 hours

Aviation Maintenance at Spokane Community College

- Certified FAA Part 147 training program

- May earn FAA maintenance licenses in:
  - Airframe maintenance & repair
  - Power plant maintenance & repair

- May earn Associates of Applied Science degree in Aviation Maintenance

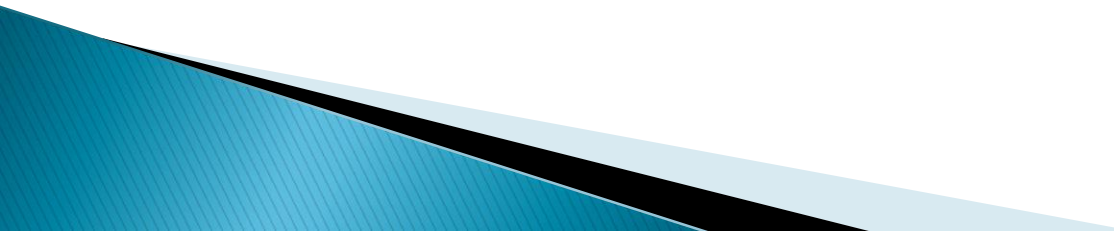# Aviation Maintenance at Spokane Community College

Length of program
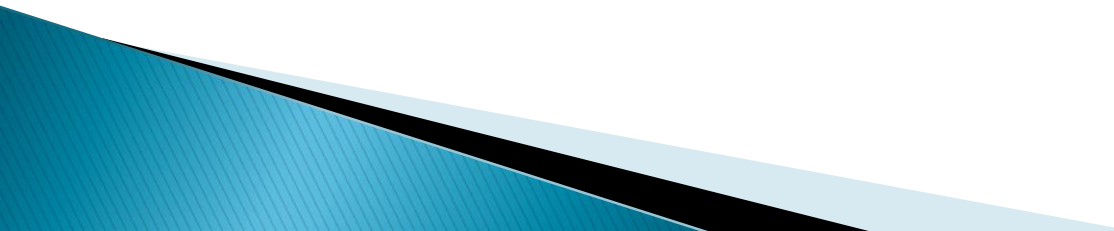
❑ 6 quarters / 2 years

❑ 1900 certified clock hours

Aviation Maintenance at Spokane Community College

❑ Optional summer certification in Avionics

  ❑ Two sequential summers

  ❑ Results in a additional Washington State Technical Certificate

  ❑ Endorsed by the Boeing Company

Aviation Maintenance at Spokane Community College

- Program is designed around 3 separate focus areas:

  - General Maintenance, Service, and Repair

  - Airframe Maintenance, Service, and Repair

  - Power plant Maintenance, Service, and Repair

Aviation Maintenance at Spokane Community College

- 3 fulltime faculty with a combined 80+ years of experience

- 3 part time faculty with a combined 60+ years of experience

- 1 full time staff support position

- Program is IBEST enhanced for first two quarters

Aviation Maintenance at Spokane Community College

❑ Over $5M in equipment and aircraft

❑ State of the Art facilities

❑ Active student club

❑ Official Program Partners

Boeing Engine Donation

787 Dreamliner Engine
GEnx-1B70/75

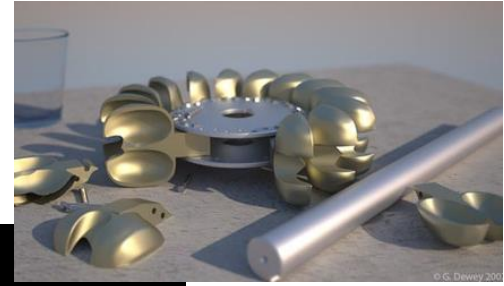# Celebration of Donation With State and Local Officials

Spokane Community College Manufacturing Focused Programs

❑ CAD Drafting & Mechanical Design

- ❖ 2 year / 6 quarter program of study
- ❖ Design & Build curriculum
- ❖ Approximately 17 program completers annually
- ❖ 85% initial employment rate for completers
- ❖ Utilizes current software design systems such as:
  - ❖ Solid Works
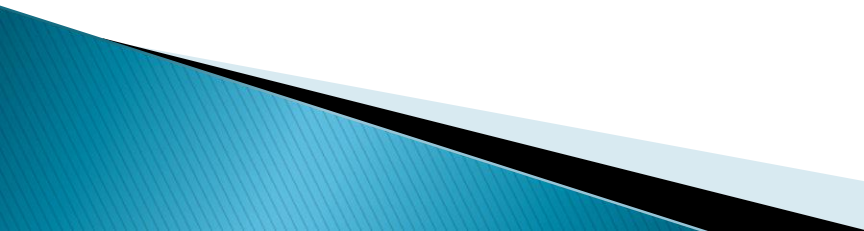 - ❖ AutoCad

CAD Computer Aided Drafting/Design

- Machining and Welding
- Manufacturing
- Design

Spokane Community College
Manufacturing Focused Programs

❑ Electrical Maintenance and Automation Technology

- ❖ 2 year / 6 quarter program of study
- ❖ 25% lecture and 75% lab curriculum
- ❖ Approximately 22 program completers annually
- ❖ 95% initial employment rate for completers
- ❖ In depth automation technology training
  - ❖ Programmable Logic controllers
  - ❖ A/C Frequency Drive Systems
  - ❖ "Ladder Logic"

Spokane Community College
Manufacturing Focused Programs

❑ Electronics Engineering Technology

- ❖ 2 year / 7 quarter program of study
- ❖ Program "track" options
  - ❖ Electronic Engineering Technician
  - ❖ Bio-Medical Technician
  - ❖ Avionics Technician
- ❖ Approximately 24 program completers annually
- ❖ 85% initial employment rate for completers
- ❖ Laser and precision Optics optional courses
- ❖ Students prepared to sit for IPC soldering certification

Spokane Community College
Manufacturing Focused Programs

❑ Hydraulic / Pneumatic Power and Automation

 ❖ 2 year / 6 quarter program of study
 ❖ Design, Build, test curriculum
 ❖ Approximately 17 program completers annually
 ❖ 85% initial employment rate for completers
 ❖ In-Depth Programmable logic controller (PLC) training
 ❖ Utilizes current software design systems such as:
   ❖ Solid Works
   ❖ AutoCad

Spokane Community College
Manufacturing Focused Programs

❑ Computer Numerical Control (CNC) Machining

- ❖ 2 year / 6 quarter program of study
- ❖ Design & Build curriculum
- ❖ Approximately 27 program completers annually
- ❖ 95% initial employment rate for completers
- ❖ Utilizes current software design systems such as:
  - ❖ Mastercam
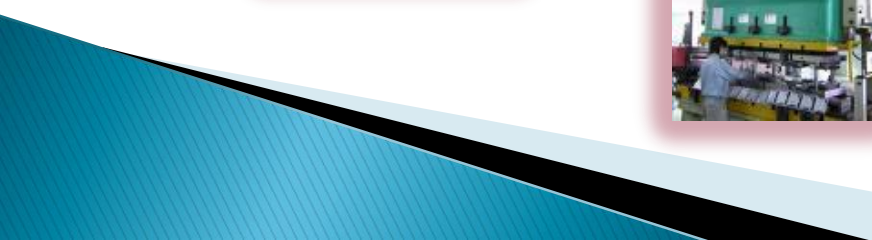 - ❖ AutoCad
  - ❖ Solid Works

Types of machining
  Prototype
  Production
  Plastic injection mold
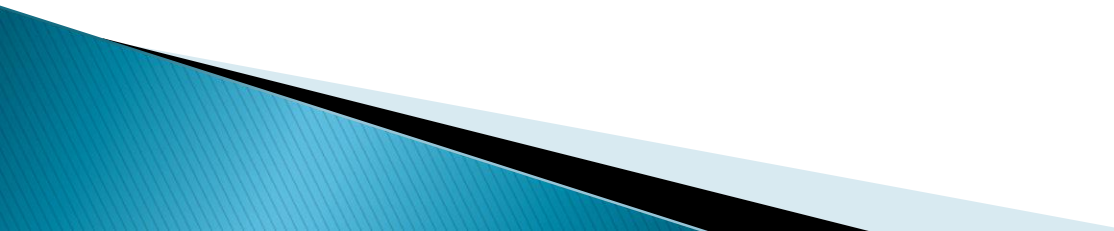 Plastic blow mold
  Tool and Die

Machining/CNC

Spokane Community College
Manufacturing Focused Programs

❑ Welding and Fabrication

   ❖ 1 year / 3 quarter program of study
   ❖ 25% lecture / 75% lab curriculum
   ❖ Approximately 37 program completers annually
   ❖ 85% initial employment rate for completers
   ❖ Optional 4th quarter in high tech / precision processes
   ❖ AWS welder certification offered

Stannard Technical Education Building

The Stannard Technical Education Facility (Building 28) features programs of study in CNC, Machining, Electronics Maintenance and Automation, HVAC and Refrigeration, Hydraulics and Pneumatics, Welding and Fabrication.
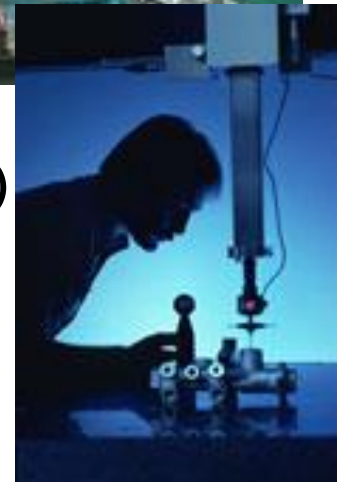
Stannard Technical Education

Welding

- Types of welding
  - Arc
  - Shielded gas- MIG and TIG
  - Gas – oxygen acetylene
  - Brazing and soldering
  - Under water welding

Welding-Machinist/CNC-CAD

- Support Manufacturing of all types
- Can be a long term career or a foundation skill leading to…….
  - Product design and development
  - Technical sales
  - Quality control
  - Leadership- Supervisor; Management
  - Entrepreneurship (owning your own business)

Thank you!

For more information, please contact:
Dave Cox
Dean of Instruction for the Technical Education Division
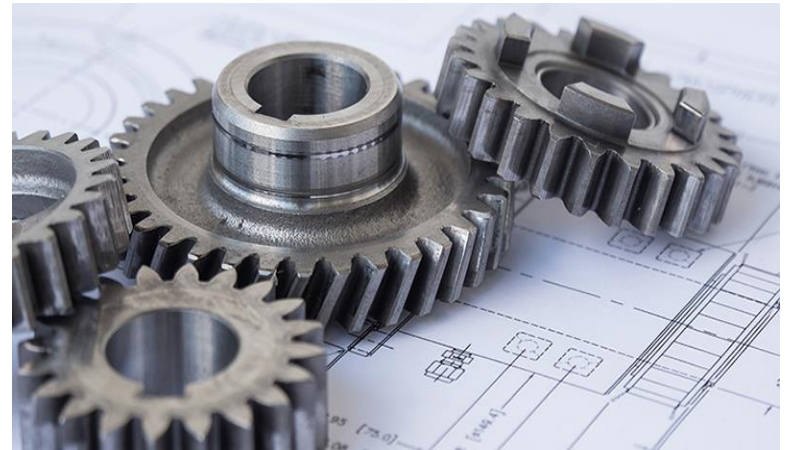Spokane Community College
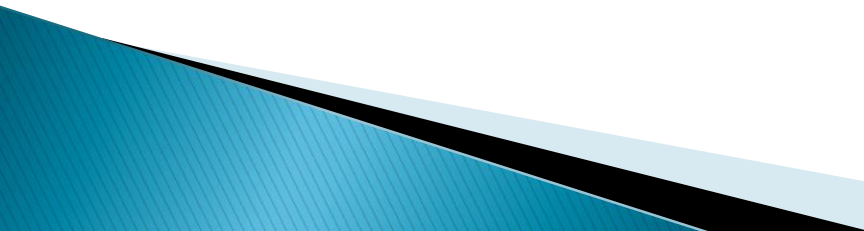Dave.Cox@scc.spokane.edu
509-533-8675

Spokane Falls Community College: Engineering

- Our Engineering program supports students through their first two years of our three Engineering tracks:
  - Civil/Mechanical/Aeronautical
  - Biological/Chemical
  - Computer/Electrical

- Students are supported through a collaborative team of engineering, math, science, and faculty who are highly invested high-quality instruction and student success

Spokane Falls Community College: Engineering

- Whether you are interested in <u>applying physics and engineering concept to design machines</u>, <u>developing systems that relate living organisms to materials & energy</u>, or <u>gaining foundational skills for a career in an industry that relies on advanced computers and electronic systems</u>, we have a spot for you!

- Our graduates have transferred to regional universities, such as Gonzaga, and national universities, including Rochester Institute of Technology

Spokane Falls Community College: Information Systems and Cyber

▶ Our Information Systems and Cyber programs are well positioned to train the next generation of professionals destined to fill in-demand jobs in various industries.

▶ Offering degrees and credentials in:
  ◦ Associate of Applied Science, Information Technology
  ◦ Certificates in Basic through Advanced Cyber Defense and Computer Forensics/Network Security
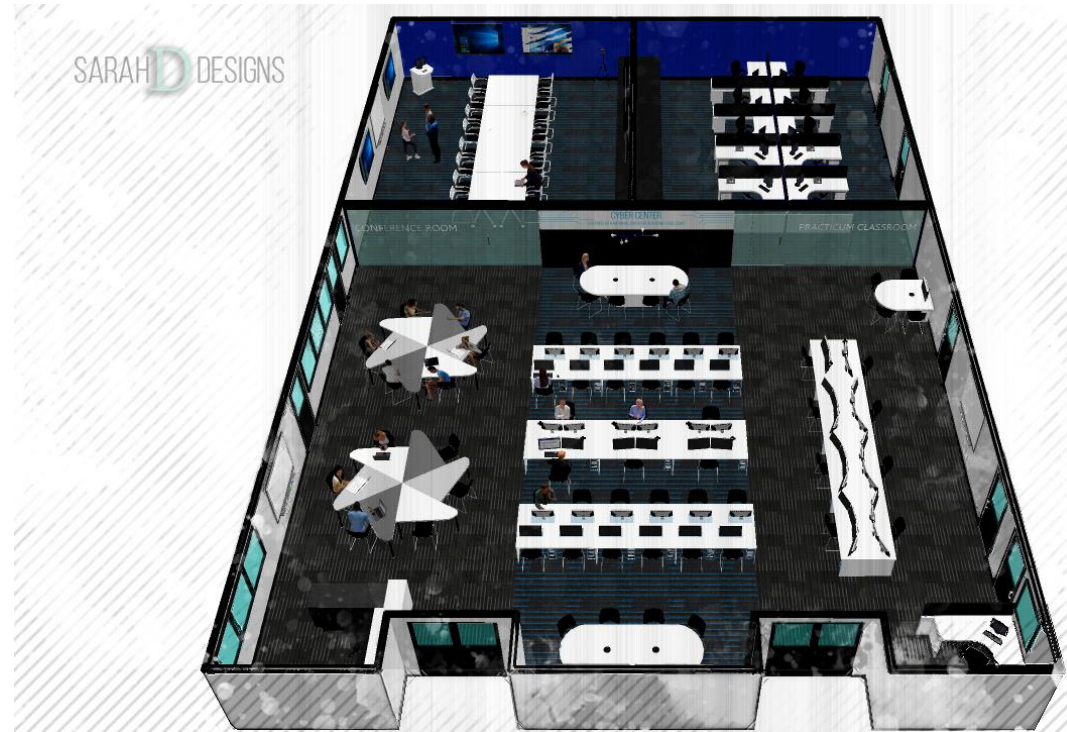 ◦ Two Bachelor of Applied Science: Cybersecurity and Information Systems and Technology

Spokane Falls Community College: Information Systems and Cyber

- In 2019, SFCC was named a Center of Academic Excellence in Cybersecurity by National Security Agency (NSA)

- This official designation recognizes SFCC's Cyber Defense programs as meeting and exceeding program criteria aimed at serving the nation in contributing to the protection of the National Information Infrastructure.

Spokane Falls Community College: Information Systems and Cyber

- In collaboration with the CCS Foundation, SFCC's faculty in IS/Cyber are transforming their vision of a Cyber Center into reality. Although in the early stages of planning, the tentative open date is Spring 2022.

Interested in SFCC programs?

Contact:

Dr. Sarah Martin

Dean of Computing, Math and Science

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509-533-3680