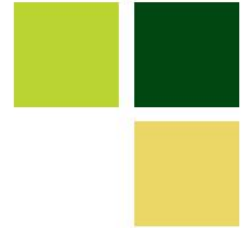# Proposed UCC Industrial Technology Center Plan to Address Our Community Training Needs Today and in the Future

March 11, 2020

Presented by:
Clay Baumgartner
Chair, Applied Science & Technology Department
Member, ITC Steering Committee

Presented on Behalf of Programs for:
Apprenticeship, Automotive, Computer Information Systems, Computer Science, Engineering, Forestry, Welding, Criminal Justice, Emergency Medical Technology, Fire Science, Community Education

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2 YEARS OF PLANNING: ITC STEERING COMMITTEE

Issue:
$40 million identified need
$16 to $18 million budget

Outcome:
Integrated Solution
Enhance, Modify, Expand
Ready for New Programs

Apprenticeship **Automotive**

Engineering **Forestry** **Computer Technology**

Welding

Criminal Justice

EMT

Fire Science

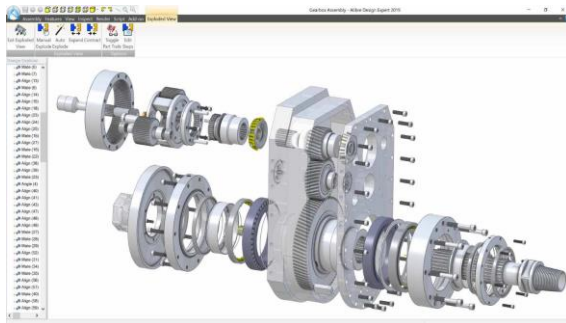**Community Education & Workforce Training**

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Advanced Technologies in Workplace

Computer Aided Design

Manufacturing

Automated Manufacturing

Computer Aided Design

CNC Machinery

Robotics

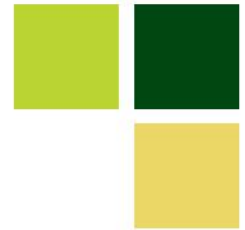## 3D Printing

How 3D Printing is Impacting Manufacturing
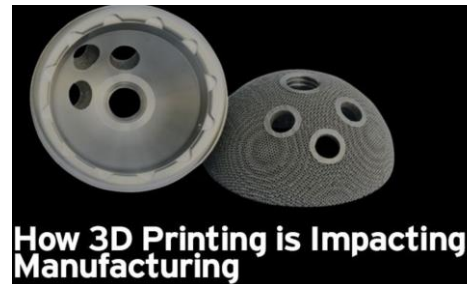
Construction

Buildings, Sitework, Utilities

GPS and Automation

# TECHNICAL CENTER – SYNERGY-INTEGRATED TODAY & FUTURE

Enhancing Existing Programs
Apprenticeship, CIS/CS, Engineering, Forestry, Welding, Criminal Justice, EMT, Fire Science
Community Workforce & Training

Recruitment/Retention

Modified, Expanded and New Programs

CAD, Automation & Controls, Computer Systems, Drones, GIS, Welding & Fabrication, Graphic Design, Advanced Manufacturing, Machining, Composite Materials, Mechatronics, Construction, Public Safety, Material Products, Occupational Skills Training, Robotics, Programming, 3D Printing, Industry Workforce Training
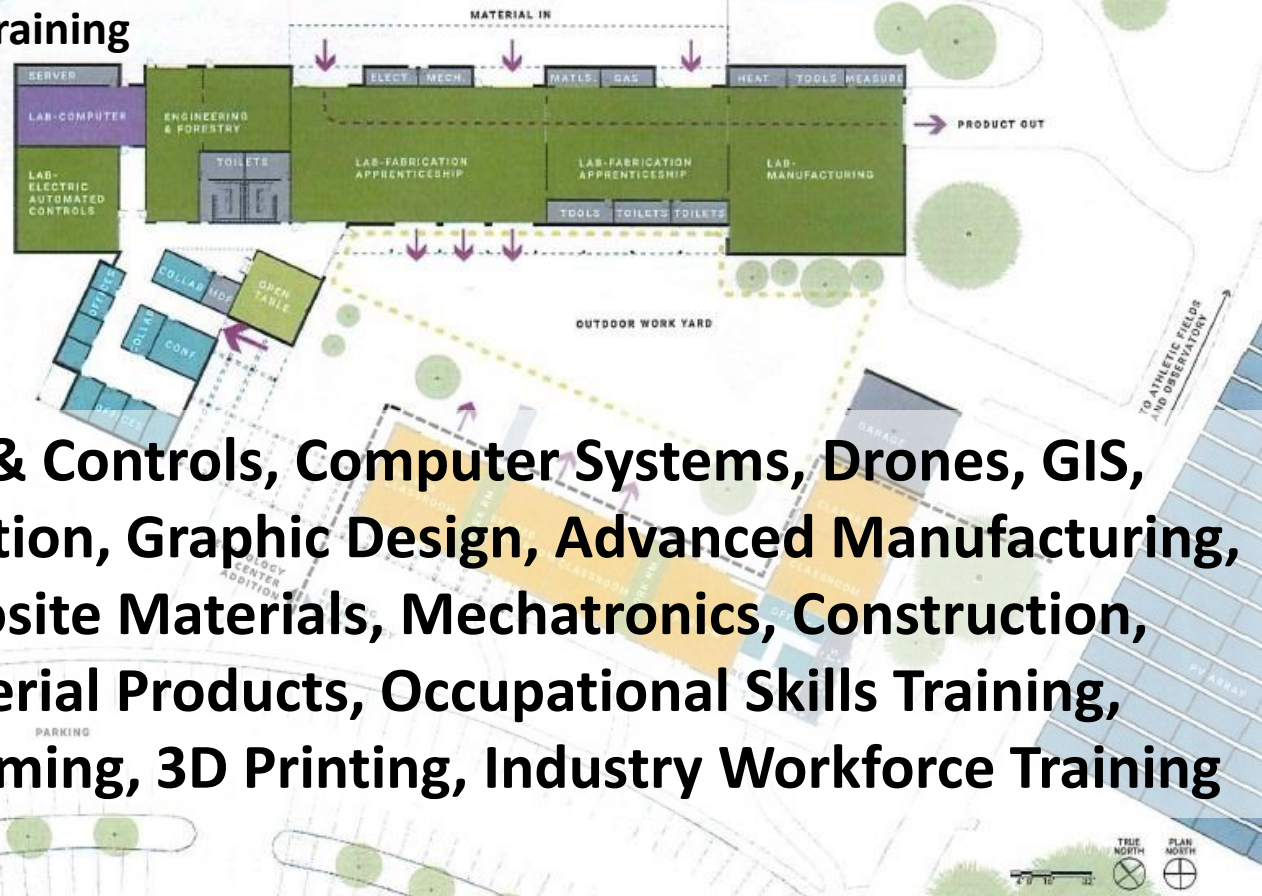
Fabrication, Welding, and Machining

Programs

- Welding
- Apprenticeship
- Manufacturing
- Engineering
- Renewable Materials-Wood Products

Equipment

- Welding
- Plasma Cutting
- Manual Machining
- CNC Machining
- Waterjet
- Heat Treatment
- Measurements

13,200 sf

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Electronics, Automation, and Controls

Programs

- Apprenticeship
- Engineering
- Manufacturing
- CIS/CS

1,200 sf

Equipment

- Signal generators, power supplies, oscilloscopes, multimeters
- Programmable Logic Controllers
- Motors and motion controllers
- Robots and drones
- Pneumatics

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Forestry and Engineering

Programs

- Forestry
- Engineering
- Renewable Materials - Wood Products

Equipment

- Countertop workspaces with sinks, air, and electricity
- Vent hoods
- Engineering testing
- Storage for forestry and surveying field equipment
- Portable saw mill

2,500 sf

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CAD/GIS Lab

Programs

- Apprenticeship
- CIS
- Engineering
- Forestry
- Welding

Equipment

- CAD workstations with multiple monitors
- Projection
- AutoDesk, SolidWorks, ArcGIS
- Visual Studio, Matlab

1,500 sf

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Open Table Lab

Programs

- Welding
- Manufacturing
- Apprenticeship
- Engineering
- Forestry
- CIS

Equipment

- TV monitors on walls
- Large tables
- Storage

950 sf

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Collaboration Space

Programs
- All Programs
- Student Clubs

Application
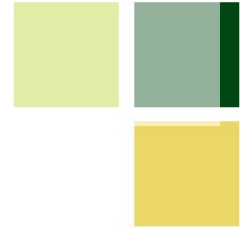- Interdisciplinary student projects
- Student club workspace

Equipment
- Working Tables
- TV Monitors
- 3D Printers
- Laser Cutter

450 sf

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Public Safety

Enhanced, Modified, Expanded, and New Programs
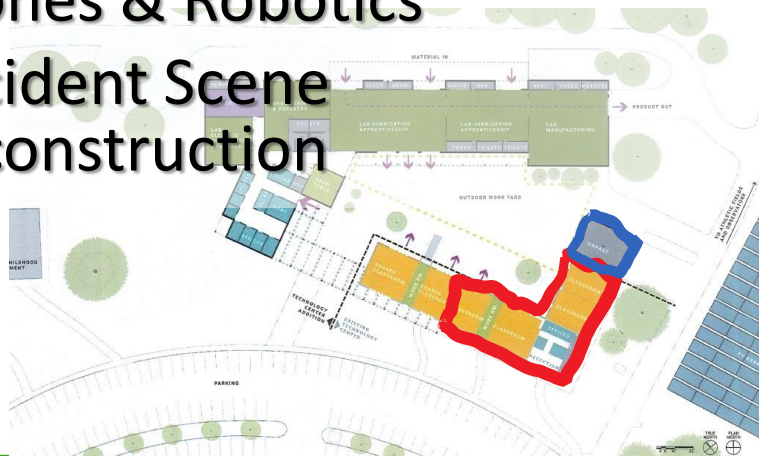
Programs
- Criminal Justice
- EMT
- Fire Science

Synergy
- Wildland Fire Fighting
- GIS Mapping
- Drones & Robotics
- Accident Scene Reconstruction

Application
- Central Administrative Offices
- Grouped Class Rooms
- Scenario Rooms
- Equipment Storage
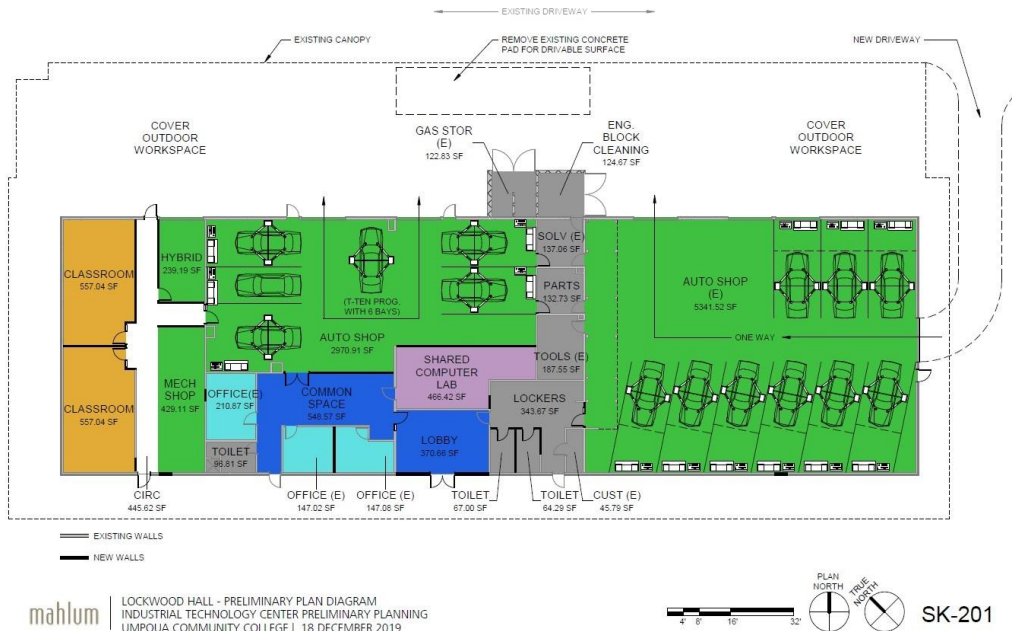- Covered Storage for Fire Trucks and Emergency Vehicles

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LOCKWOOD FACILITIES
PROGRAM ENHANCEMENTS & NEW OFFERINGS

Enhanced, Modified, Expanded, and New Programs

Light Diesels	**Autonomous Vehicles**
Alternative Fuel Vehicles	**Advanced Control Systems**
Hybrids	**Occupational Skills Training**
Electric Powered Vehicles	**Workforce Training**

mahlum | LOCKWOOD HALL - PRELIMINARY PLAN DIAGRAM
INDUSTRIAL TECHNOLOGY CENTER PRELIMINARY PLANNING
UMPQUA COMMUNITY COLLEGE | 18 DECEMBER 2019

SK-201

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Questions?

Follow-up Information?