BAY AREA
COMMUNITY COLLEGES

Bay Area Skilled Trades
Manufacturing Programs

Uniquely Abled Academy

2025-03-26

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Agenda

- Overview of Manufacturing
- Introductions
  - Mike Appio (De Anza department head)
  - Manisha Karia (De Anza Dean)
  - Jessica Morrow (Jay Nolan)
  - Denise Dorsey (DOR)
  - Regional Centers rep
- Overview of UAA Program
  - Skills taught
  - Dates / Times / Schedule
  - Funding
- Questions
- Shop tour / Demonstration
- Additional questions

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Community College Educational Programs

- **Comm College:** up to 2 years training
- **State:** 116 colleges (2M students)
- **Bay Area:** 28 colleges (345,000 students)

BayAreaManufacturingCareers.com

Uniquely Abled Academy for Autistic Adults

DESCRIPTION

The community college manufacturing training program specifically designed for high-functioning autistic adults is moving forward for summer 2025. It will be a 12-week, full-time program at De Anza College in Cupertino, tentatively scheduled from July 7 - Sept 26. We plan on having a class size of 10 students. While we had hoped to get a direct grant to pay for the program, at this time we will need to rely on individuals to bring their own funding (through DOR, Regional Center, or self-funding). Cost for the class is $17k. If not already connected to DOR or a Regional Center, we will work with students to get them connected to assess their eligibility.

The program is focused on getting students employed in a full-time career as a CNC (computer numerically controlled) operator. While this program is new to the Bay Area, it is a well-established model at a number of locations throughout the US.

- If you're interested in getting updates about the program, please fill out the interest survey here.

OPEN HOUSE

We're also holding an Open House to talk about the program and for you to see the facility.

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Manufacturing Overview

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How is this made?

Rotational molding

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What is your view of manufacturing in the U.S.?

- Dirty, dark & dangerous (the 3 D's)?
- Losing out to the rest of the world?
- Not as advanced as other countries?

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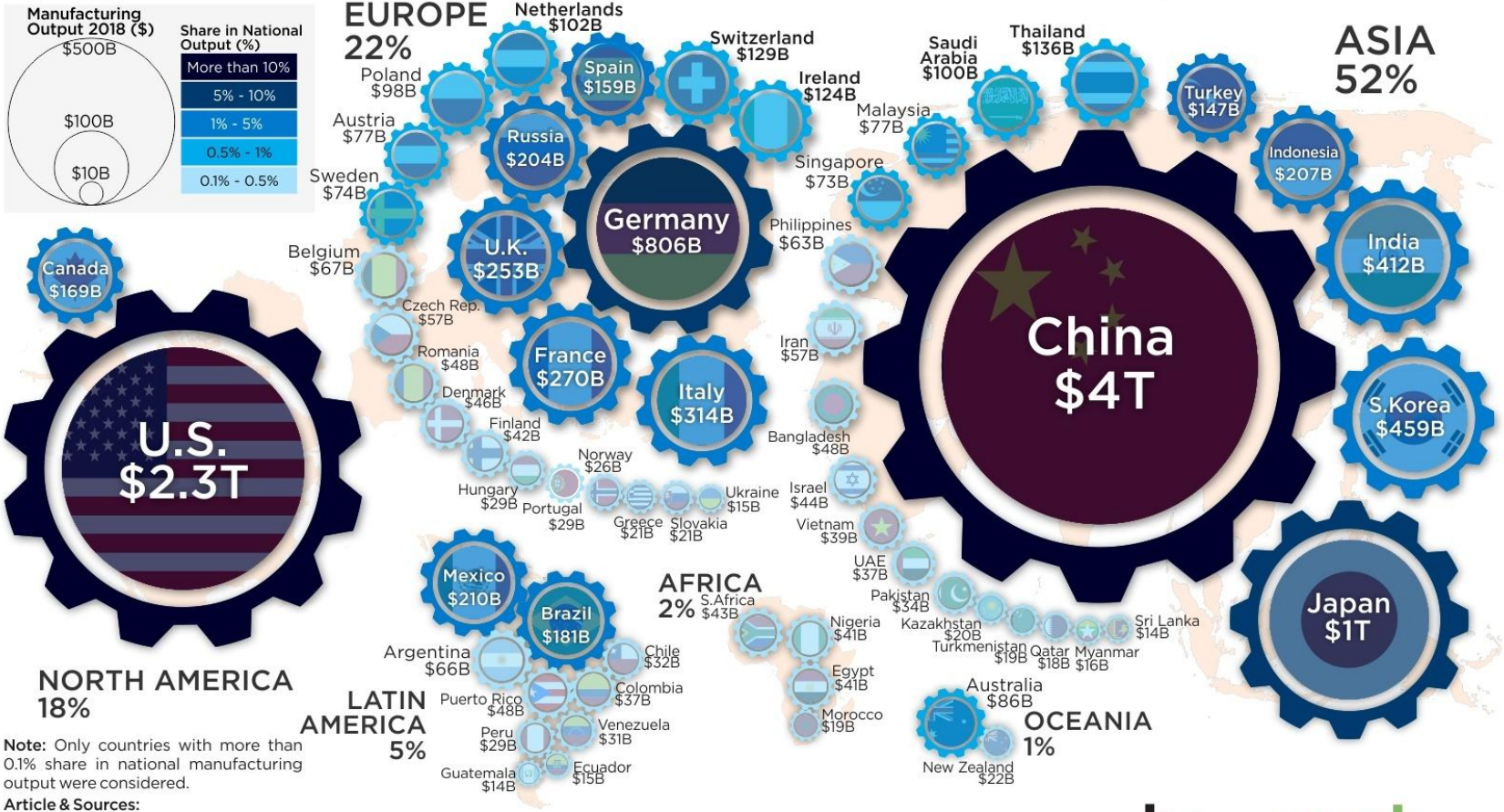
2018

Map of the World's Manufacturing Output



Note: Only countries with more than 0.1% share in national manufacturing output were considered.

Article & Sources:
https://howmuch.net/articles/map-worlds-manufacturing-output
United Nations Statistics Division - https://unstats.un.org/

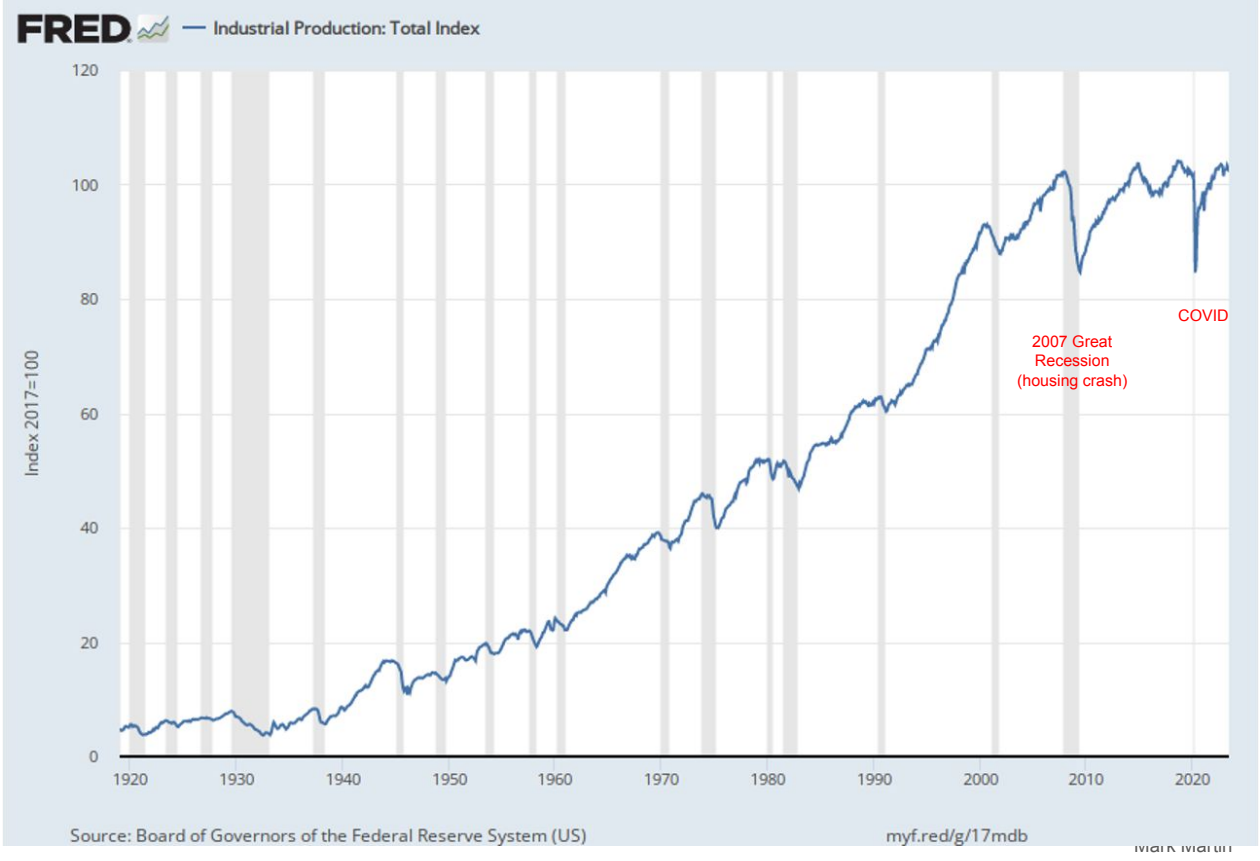
howmuch.net

Formaspace.com

U.S. Manufacturing Output (GDP)

- 1919 - 2023

US manufacturing output continues to grow (in inflation-adjusted dollars)



Source: St Louis Fed
U.S. Mfg Output (1919 – 2023)

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How is California doing in manufacturing?

- Sure, US manufacturing is doing fine, but not California.
  - It's too expensive here! Right? (well, it is expensive!)

- California is actually the largest manufacturing state

- But, everything's moving to Texas. Right? Everyone is saying that!

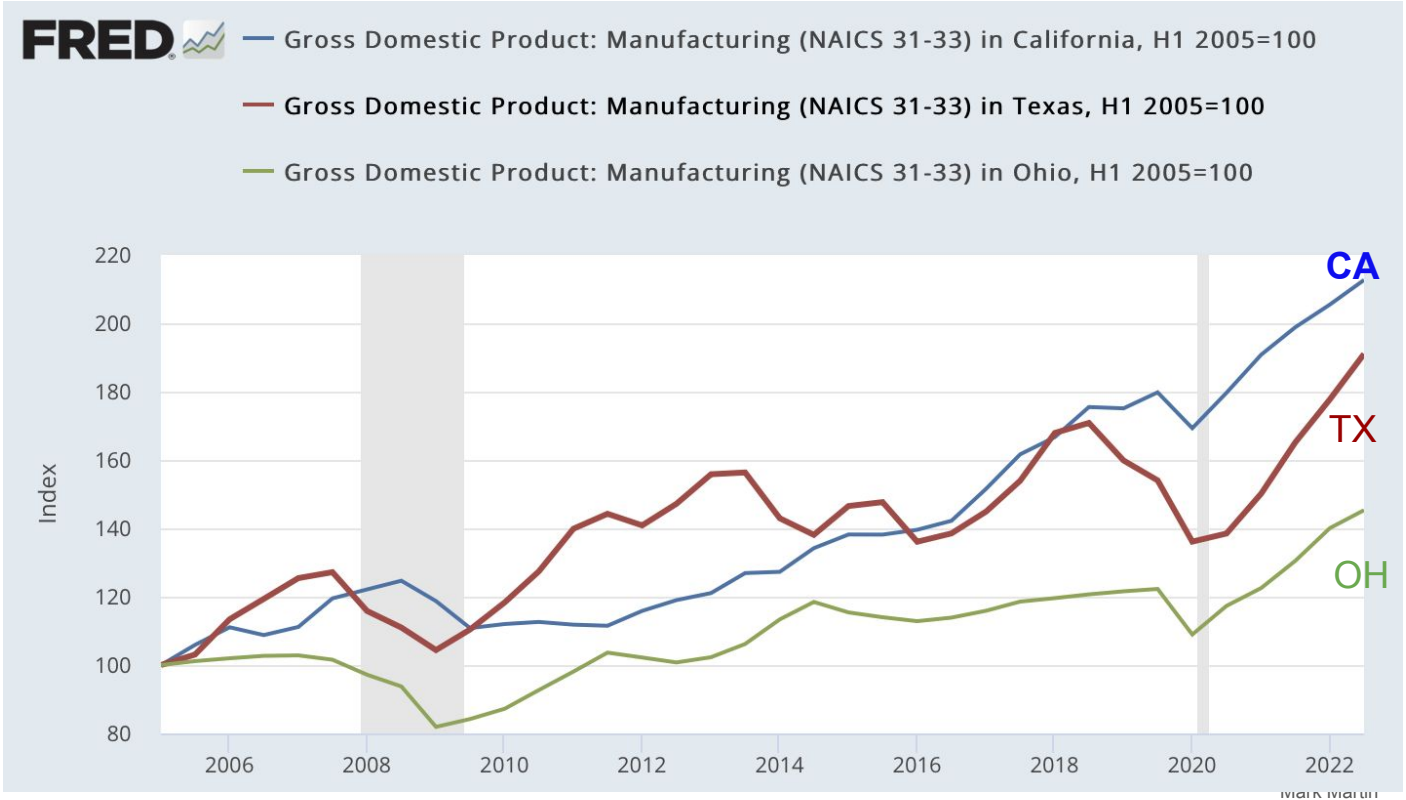
Manufacturing Growth in CA (indexed to 2005)

- **CA** vs. TX vs. OH

Mfg has grown faster in CA than in TX or OH since 2005

(as far back as this data goes)

Source: St Louis Fed



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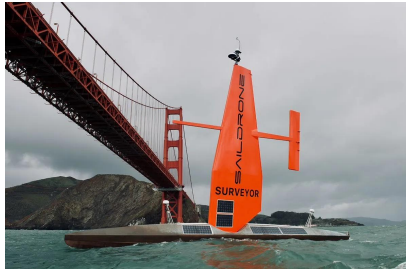
Bay Area Manufacturing

- Over 200,000 jobs



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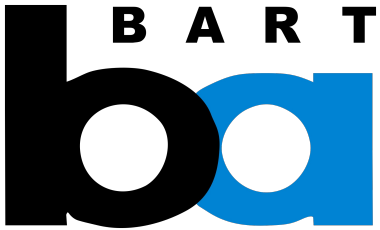
Lots of Different Companies



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Manufacturing (in US)

- No longer this…

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More Automation

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Finding SKILLED WORKERS is THE biggest issue in manufacturing

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Companies Need Help

- 10 Hardest Jobs to Fill (2011)

1. **Skilled Trades**
2. Sales Representatives
3. **Engineers**
4. Drivers
5. Accounting and finance Staff
6. IT Staff
7. Management / Executives
8. Teachers
9. Administrative Staff
10. **Machinist**

Manpower Survey - http://us.manpower.com

Companies Need Help

- 10 Hardest Jobs to Fill (2014)

Manpower Survey - http://us.manpower.com

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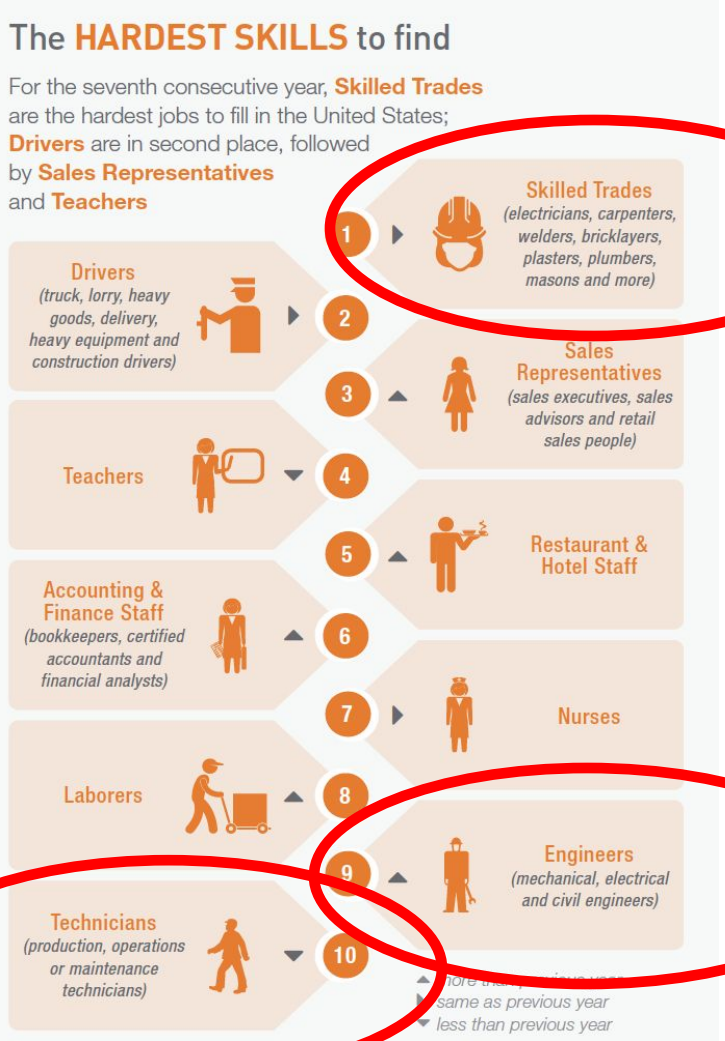
Companies Need Help

- 10 Hardest Jobs to Fill (2017)



Manpower Survey - http://us.manpower.com

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Companies Need Help

- 10 Hardest Jobs to Fill (2018)

Manpower Survey - http://us.manpower.com

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Shortage of Mfg Employees (2022)

2.1 Million Manufacturing Jobs Could Go Unfilled by 2030

By NAM News Room | May 4, 2021 1:27pm

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Labor Constraints Remain Greatest Challenge for Resurgent Manufacturing Sector

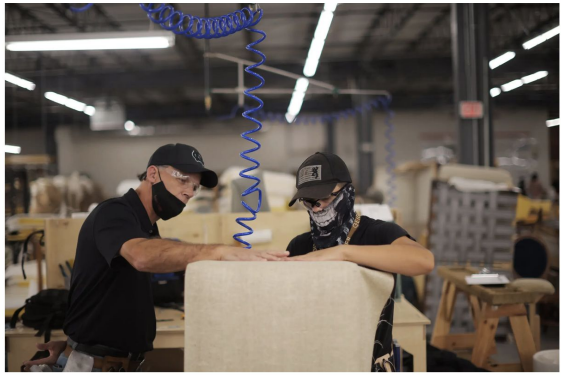
July 13, 2022

The New York Times

Factory Jobs Are Booming Like It's the 1970s

U.S. manufacturing is experiencing a rebound, with companies adding workers amid high consumer demand for products.

Give this article | 561



A furniture factory in Hickory, N.C. Data suggest the rebound is largely a product of the pandemic recession and recovery. Travis Dove for The New York Times

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And workforce not just an issue in CA (or even the US)

Autodesk State of Design & Make 2023

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Mfg Jobs / Pay in the Bay Area (2024)

Electronic Technician
Computer Aided Design
Industrial Maintenance (Adv)
Machinists
Welder
Maintenance (Basic)
Quality Control
Machine Operators
Entry-level (Assemblers & Operators)

More information can be found at:
https://bayareamanufacturingcareers.com/mfg-resources.html

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Mfg Jobs / Pay in the Bay Area

	Jobs (2023 estimate)	Annual job openings (2023 estimate)	Pay / hour * (2024 median)
Electronic Technician	13,000	1,300	*$40*
Computer Aided Design	3,500	350	*$42*
Industrial Maintenance (Adv)	8,600	1,000	*$41*
Machinists	12,000	1,300	*$32*
Welder	6,700	800	*$30*
Maintenance (Basic)	44,000	4,700	*$30*
Quality Control	13,000	1,700	*$41*
Machine Operators	7,500	1,000	*$26*
Entry-level (Assemblers & Operators)	56,000	7,600	*$20*

* Plus benefits!

More information can be found at:
https://bayareamanufacturingcareers.com/mfg-resources.html

Source: BLS OnetOnline.org
2024 Wage Data

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Uniquely Abled Academy (UAA) OVERVIEW (tentative)

Program Description

This intensive job training program will prepare you for an **entry-level job as a CNC operator** at automotive, medical device and other manufacturing companies. CNC operators use Computer Numerically Controlled (CNC) machine tools, such as mills and lathes to produce precision metal parts.

Class Dates / Times

- July 7 - Sept 26
- Monday to Friday, 9:00am to 4:00pm (6.5 hrs/day, 32.5 hrs/week)
- 12 weeks
- Approx 360 hours of instruction

Personnel

- Up to 10 students
- One faculty member + teaching assistant
- Classroom support assistant
- Career counselor

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UAA - What is taught

Instruction type	Class Hours	Student Hours
Safety	• Industrial safety & OSHA 10	18
Career skills	• Transferrable skills, resume preparation, employability (soft) skills, and interviewing skills • Career placement interviews and graduation ceremony	28
Math	• MATH	31
Print Reading	• Print reading	18
CNC	• CNC: Operator training & programming	154
Manual	• MANUAL: Introduction to and operation of manual mills and lathes	70
Tours	- Factory tours (5 half days of 4 hours)	20
Other Soft skills	- Intro, Interview Prep, Misc	25

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UAA - Schedule Example

START 7/7/2025	6.5	7/8/2025	6.5	7/9/2025	6.5	7/10/2025	6.5	7/11/2025	6.5
Safety	2	Safety	2	Safety	2	Safety	2	Career skills	2.5
INTRO	2	Math	2	Math	2	Math	2		
				Print Reading	2.5	Print Reading	2.5	Tour	4
Manual	2.5	Manual	2.5						
7/14/2025	6.5	**7/15/2025**	6.5	**7/16/2025**	6.5	**7/17/2025**	6.5	**7/18/2025**	6.5
Safety	3	Safety	3	Safety	2	Safety	2	Career skills	3.5
Math	2	Math	2	Math	2	Math	2	Math	3
Print Reading		Print Reading		Print Reading	2.5	Print Reading	2.5		
Manual	1.5	Manual	1.5						
7/21/2025	6.5	**7/22/2025**	6.5	**7/23/2025**	6.5	**7/24/2025**	6.5	**7/25/2025**	6.5
								Career skills	2.5
Math	2	Math	2	Math	2	Math	2		
Print Reading	2	Print Reading	2	Print Reading	2	Print Reading	2	Tour	4
Manual	2.5	Manual	2.5	Manual	2.5	Manual	2.5		
7/28/2025	6.5	**7/29/2025**	6.5	**7/30/2025**	6.5	**7/31/2025**	6.5	**8/1/2025**	6.5
								Career skills	3.5
Manual	6.5	Manual	6.5	Manual	6.5	Manual	6.5	Math	3
8/4/2025	6.5	**8/5/2025**	6.5	**8/6/2025**	6.5	**8/7/2025**	6.5	**8/8/2025**	6.5
								Career skills	2.5
Manual	6.5	Manual	6.5	Manual	6.5	Manual	6.5		
								Tour	4
8/11/2025	6.5	**8/12/2025**	6.5	**8/13/2025**	6.5	**8/14/2025**	6.5	**8/15/2025**	6.5
								Career skills	3.5
CNC	6.5	CNC	6.5	CNC	6.5	CNC	6.5	Math	3

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UAA - Funding

- Cost of the program is $17k per student

- We will help you work with DOR, Regional Centers and others to seek funding

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UAA - Criteria for admittance

- Main criteria - students who are interested in this type of career!

- Other criteria
  - Attend the Recruitment and Eligibility Workshop (you're here!)
  - possession of basic computer and math skills
  - completion of ACT WorkKeys skills assessment (Applied Mathematics, Reading for Information at level 4 or higher). There are online sample tests you can take to help you prepare.
  - One-on-one meeting with organizers

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Questions

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Shop Tour