Designed For Industry™

Our Path Forward

AC-REP

Presented by: Dr. Ryan McCoy
Date: 03-04-25

IVER C.
RANUM
An Innovation Campus

Prepare for More

$40 million to prepare students for tomorrow's workforce

$20 million to improve school safety and security and make repairs

$40 million for modern PK-8 campus (Specialized CTE/STEM Campus)

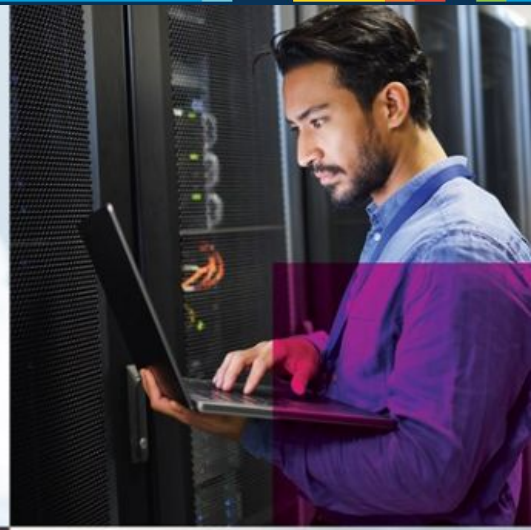
Early Success at RANUM

Aviation Engineering
AT RANUM CAMPUS

Health Sciences Biotechnology
AT RANUM CAMPUS

Cyber Technology
AT RANUM CAMPUS

www.ranum.wps.org



Aviation Engineering

AT RANUM CAMPUS

Partnering with Lockheed Martin and School of Mines on the Dragonfly Mission.

24 Industry Certificates earned IPC-Electronics/Soldering

Concurrent Enrollment w/ MSU

Designed For Industry™

CTE

RANUM

Westminster Public Schools

Aviation Engineering

AT RANUM CAMPUS

Pathway Overview

Designed For Industry™

CTE TOMORROW STARTS TODAY

IVER C. RANUM An Innovation Campus

Westminster Public Schools Where Education is Personal

Health Sciences Biotechnology

AT RANUM CAMPUS

Partners: CU Anschutz Cancer Center (BEST program) on engineering in cancer research.

University of Texas-Tyler, Iolani School: Focused on novel Mycobacterium species using state-of-the-art genetic sequencing and bioinformatics.

Tufts University, sequencing and bioinformatics identify antibiotic-resistant bacterial species in environmental soil samples.

BACE credentials this Spring

Health Sciences Biotechnology

AT RANUM CAMPUS

Pathway Overview

Cyber Technology
AT RANUM CAMPUS

Partnering with local non-profit organizations conducting cybersecurity audits, with support and mentorship with Silicon Plains.

WPS IT Department engaging students to map the district network to physical locations for the E911 system.

46 industry certificates earned, IT Specialist credentials.

Concurrent Enrollment w/ FRCC

Designed For Industry™

CTE
TOMORROW STARTS TODAY

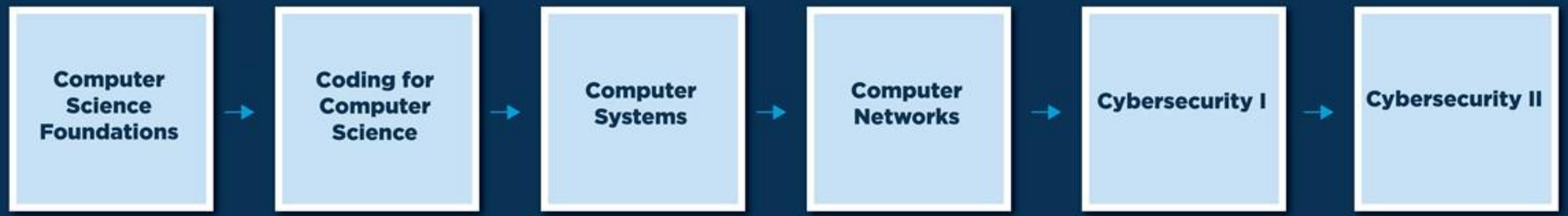
IVERA
RANUM
An Innovation Campus

Westminster Public Schools
Where Education is Personal

Cyber Technology

AT RANUM CAMPUS

Pathway Overview



Designed For Industry™

CTE TOMORROW STARTS TODAY

IVER C. RANUM An Innovation Campus

Westminster Public Schools Where Education is Personal

Prepare for More: STEM LAB

> We're thrilled to announce the **STEM Lab at Ranum** is launching in the Spring semester of 2025! This program will provide an immersive STEM experience for 8th-grade students across the district.

Why is this exciting?

The **STEM Lab** offers students hands-on learning with cutting-edge technology that introduces them to STEM career pathways, sparking interest in fields like robotics, programming, and virtual reality. It's designed to be fully engaging, with no extra work required from teachers—just an unforgettable experience for the students.

What's included in the experience?

Interactive STEM Activities are 60-90 minutes and are pre-designed, requiring no teacher preparation or follow-up grading.Students will be provided one pre-selected activity from the following list:

- **Zumi Robotic Cars**: Dive into self-driving tech with programmable robots.
- **CoDrone EDU**: Engage in coding and robotics with drones.
- **Dobot Magician Robotic Arms**: Hands-on robotics with a 4-axis robotic arm.

Phase 1.A: Health Sciences Expanding Fall 2025

Course sequences and CE through FRCC – CNA/MA (with EKG embedded);

1. **Nurse Aide Health Care Skills/Clinicals**

2. **Medical Assistant 1:**
   a. Medical Office Administrative Assistant
   b. Intro to Medical Terminology
   c. Disease Process and Treatment

3. **Medical Assistant 2:**
   a. Pharmacology for Medical Assistants
   b. Medical Assisting Clinical Skills

4. **Medical Assistant 3:**
   a. Medical Assisting Laboratory
   b. Review for Medical Assistant National Exam

Health Sciences Biotechnology
AT RANUM CAMPUS

Construction Engineering Convening Fall 2024

Phase 1.A: Construction Engineering Level 3 Fall 2025

Construction Engineering (Level 3 offered at WESTY):

1. Principles of Construction (WHS)
2. Mechanical, Electrical, and Plumbing Systems (WHS)
3. Building Materials
4. Construction Management 1
5. Construction Technology
6. Construction Management 2

Phase 1.A: FRCC Advanced Manufacturing Fall 2025 (AET)

Degree Awarded: AAS - Automation & Engineering Technology						
Grade 11 - Fall	**Grade 11 - Spring**	**Grade 12 - Fall**	**Grade 12 - Spring**	**Grade 13 - Fall**	**Grade 13 - Spring**	**Grade 14 - Fall**
MTE 1102 - Safety Manufacturing Environment (1 CR)	MTE 1100 - Print Reading for Manufacturing (3 CR)	MTE 1110 - Applied Communication & Teamwork in Industry (3 CR)	ENG 1031 - Technical Writing - (3 CR)	PHY 1105 - Conceptual Physics w/ Lab (4 CR)	EIC 2330 - Instrument & Process Control II (4 CR)	
CIS 1018 - Introduction to PC Applications (3 CR)	~~MAC 1001 - Introduction to machine Shop (3 CR)~~	ELT 2254 - Industrial Wiring (3 CR)	EIC 1271 - Maintenance Management (1 CR)	IMA 1500 - Industrial Rotating Equipment (3 CR)	ELT 2358 - Programmable Logic Controllers (3 CR)	ELT 2368 - Robotics Technologies (3 CR)
MAT 1150 - Technical Mathematics (4 CR)	ELT 1206 Fundamentals of DC/AC (4)	ELT 2252 - Motors & Controls (3 CR)	MIL 1001 - Lifting Devices (1 CR)	MTE 2220 - Lean Six Sigma (4 CR)	HVA 2035 - Specialty Refigeration Untis (4 CR)	ELT 2367 - Introduction to Robotics (1 CR)
			MTE 2320 - Fluid Power Control (3 CR)			MTE 2080 or ELT 2080 - Internship, or MTE 2089 - Capstone (1 CR)
~~Manufacturing Fundamentals Certificate~~						
~~Industrial Maintenance Certificate~~						
				Industrial Automation & Robotics Certificate		

Phase 1.A: FRCC Advanced Manufacturing Fall 2025 (EET)

Degree Awarded: AAS - Electronics Engineering Technology						
Grade 11 - Fall	**Grade 11 - Spring**	**Grade 12 - Fall**	**Grade 12 - Spring**	**Grade 13 - Fall**	**Grade 13 - Spring**	**Grade 14 - Fall**
MTE 1102 - Safety Manufacturing Environment (1 CR)	MTE 1100 - Print Reading for Manufacturing (3 CR)	MTE 1110 - Applied Communication & Teamwork in Industry (3 CR)	ENG 1031 - Technical Writing - (3 CR)	PHY 1105 - Conceptual Physics w/ Lab (4 CR)	ELT 2361 or ELT 2362 (3 CR) (FRCC pick one)	
CIS 1018 - Introduction to PC Applications (3 CR)	ELT 1004 - Electronic Assembly (3 CR)	ELT 2254 - Industrial Wiring (3 CR)	ELT 1212 Advanced DC/AC (3 CR)	ELT 2215 - Operational Amplifiesrs (3 CR)	ELT 2358 - Programmable Logic Controllers (3 CR)	ELT 2368 - Robotics Technologies (3 CR)
MAT 1150 - Technical Mathematics (4 CR)	ELT 1206 Fundamentals of DC/AC (4)	ELT 2252 - Motors & Controls (3 CR)	ELT 1247 Digital Devices I (4 CR)	ELT 2437 - Vacuum & Power RF Systems (3 CR)	EIC 1265 - Solid State Devices & Circuits (4 CR)	ELT 2367 - Introduction to Robotics (1 CR)
						MTE 2080 or ELT 2080 - Internship, or MTE 2089 - Capstone (1 CR)
Electronics Assembly Certificate						
Basic Electronics Certificate						
				Electronic Systems & Automation Certificate		

Phase 1.A: Advanced Manufacturing (Important Updates)

X-Cal will utilize Ranum as a showroom for clients and training ($160K in equipment)

March:

- Interviews begin for the Manufacturing Faculty (2)– Electronics Engineering Technology & Automation & Engineering Technology
- P.O. will be submitted for additional EET equipment

April:

- April 3rd: Signing Ceremony (FRCC and WPS)
- Finalize Faculty Position(s) and onboard
- Continue to finalize equipment needs and expend industry partners
- Continue joint applications for funders

On-going:

- Develop alignment from WPS to FRCC to MSU
- Continue explore SACA credentialing

Phase 2: Ranum Fall 2027

Expansion of:

- Aviation Engineering
- Cyber Technology
  - add AI?
- Advanced Manufacturing (AET/EET)
  - Machining and Optics
  - Colorado a Quantum Hub
- Construction Engineering
  - Level 4
  - HVAC/Plumbing Sheet Metal
  - Horizontal Construction?
- Health Sciences and Biotechnology?

Designed For Industry™

IVER C.
RANUM
An Innovation Campus