Program Overview

A three-year Career Readiness Program aligned to LRSD career academies—Agri Tech, Agri Business, Drones, Robotics, and AI—focused on hands-on skills, industry certifications, and entrepreneurial pathways anchored by a campus container hydroponic farm as a living laboratory and student-run business.

Goals and Outcomes

Building Career-Ready Students

Industry Certifications

Certify students in::
Agri-Business Management,
Agricultural Technology Systems,
Precision Farming Techniques, and Sustainable Agriculture Practices.

Entrepreneurial Credentials

Provide entrepreneurial credentials in Small Business Farm Management

Pilot Project

Teach precision agriculture, support internships, and deliver new Agri-tech and Agri-business jobs of now and the future.

Career Placement

Place students and new tech agricultural workforce into internships, industry certifications, postsecondary programs, or entry-level employment.

Program Model and Cadence

01

Cohort Structure

Cohort-based program for grades 10–12, scalable to multiple cohorts.

02

Academic Integration

Yearly academic calendar integrated into LRSD schedule: classroom theory + weekly lab blocks + industry externships (summer).

03

04

Curriculum Structure (by pathway)

Agri Tech / Agri Business

Year 1

- Foundations of Agri-Business
- Introduction to Agricultural Technology
- Sustainable Agriculture Concepts

Year 2

- Precision Farming Techniques
- Agricultural Technology Systems
- Business planning for ag enterprises

Year 3

Capstone: Student-run hydroponic production, market sales, and supply chain logistics.

Hands-on Experience

Container hydroponic design, nutrient management, sensors and IoT for monitoring, data logging, pest and disease basics.

The Future of Farming（core）

20' or 40' modified shipping container(s) with vertical NFT and raft systems, LED grow lights, climate control, reservoirs, pH/ec monitoring, automated dosing, and edge computing for data capture.

Student projects: system build, automation scripts, yield tracking, business plan, produce sales and distribution.

Experiential Learning & Partnerships

Industry Partners

Local farms, ag-tech firms,, community college for co-certification.

Work-Based Learning

Internships in growing season, mentoring by industry volunteers.

Community Market

Weekly school farm stand; CSA subscriptions; B2B supply to local restaurants.

Assessment & Certification

Competency-Based Assessments

Competency-based assessments mapped to certifying body standards.

Practical Demonstration

New-tech Agriculture solutions; production logs and QA for hydroponics.

Digital Portfolio

Digital portfolio for each students and retrained and certified (projects, certifications, capstone outcomes).

Staffing and Roles

Program Director

0.5 FTE — oversight, partnerships, compliance.

Lead Instructor — Agritech/Hydroponics

1.0 FTE

Lead Instructor — Drones/Robotics/AI

1.0 FTE

Lab Technician/Coach

1.0 FTE — fabrication, 3D, VR, and container maintenance.

Business/Entrepreneurship Instructor

0.5 FTE

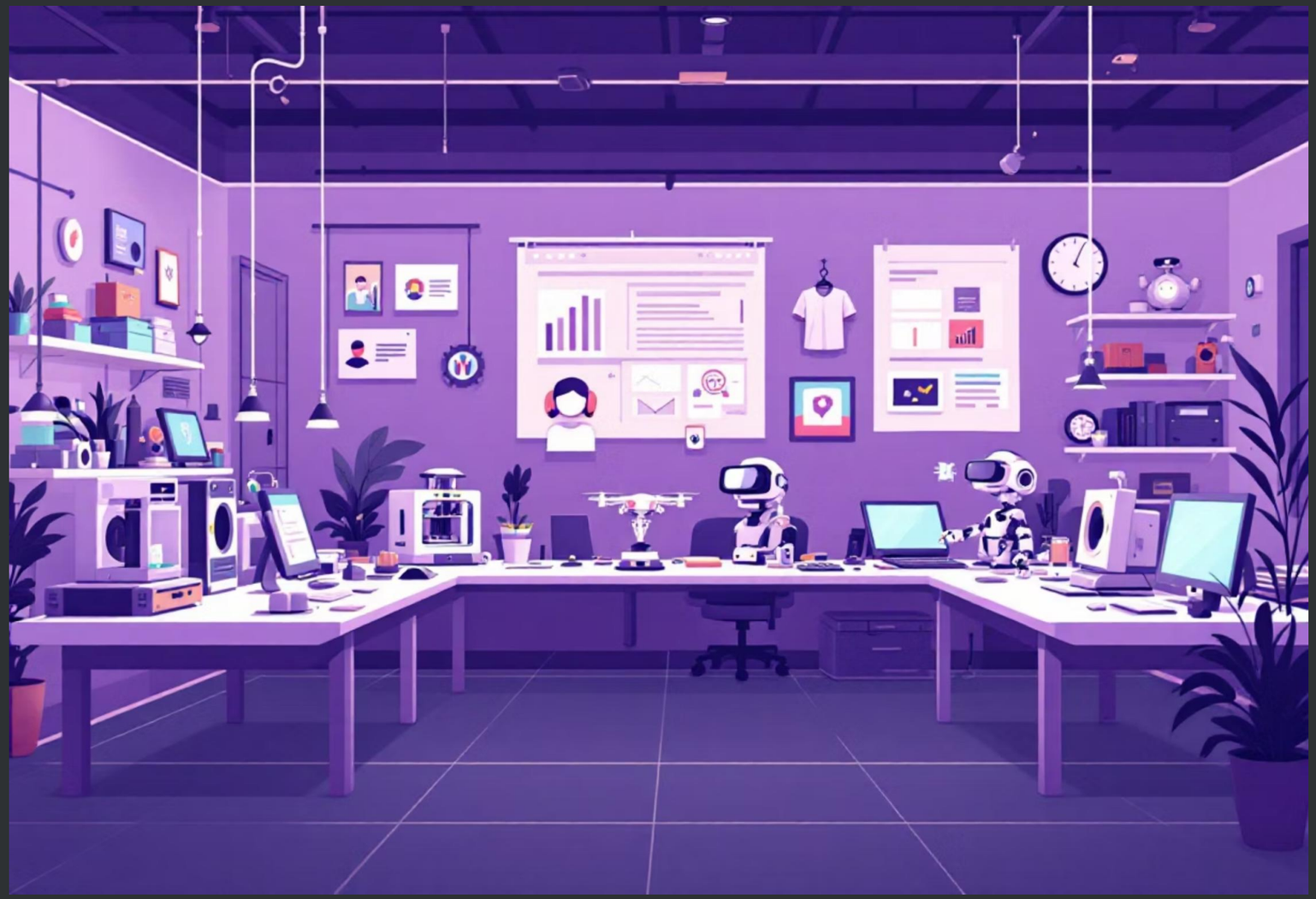
Contracted Trainers

Part-time contracted trainers for certifications and summer intensives.

Industry Mentors

Mentors from industry as unpaid/paid adjuncts.

Equipment and Facilities (key items)



- New-tech Agriculture Research

  UAPB, Cooperative Extension Services, 4-H, FFA and other partners(20' or 40') with full systems (lighting, HVAC, pumps, sensors).

- New tech Fleet of Services and Products

3-Year Budget Summary (Program Total and Annual Breakdowns)

Assumptions: cohort size 24 students; staged equipment purchases in Year 1; standard vendor pricing estimates; in-kind partner support reduces some costs; salaries based on typical regional education rates (adjust for LRSD payroll rules).

Category	Year 1 (2025-26)	Year 2 (2026-27)	Year 3 (2027-28)	3-Year Total
Personnel (salaries + benefits, partial FTEs)	00	0,000	5,000	00
install + sensors	00	$000	000	000
	00	00	00	000
equipment	00	00	00	00
/software	00	00	00	000
Curriculum, certification fees, testing	000	000	000	000
travel	000	000	000	000
	00	,000	000	00
r business	00	00	00	00
partnership costs	0	,000	000	00
portfolio tools	00	00	00	00
Outreach, marketing, recruitment	00	000	00	000
	00	$15,750	$16,250	500
Total Annual	**500**	**50**	**250**	**,500**

Notes:

- Year 1 is capital intensive for equipment and setup; Years 2–3 focus on operations, expansion, certification throughput.
- Personnel costs cover FTEs listed and part-time specialists.
- Curriculum & certification fees include per-student exam costs, vendor training, and aligned college credits where applicable.
- Contingency at 5% to cover price changes and unforeseen expenses.

Per-Student Cost Estimate

$?

per student across 3 years

Total program cost / total students across 3 years. If single cohort of 24 per year over 3 years (72 students), average cost ≈ $? per student across 3 years.