

Academic Roadmap (K–12)

Woezo Academy International: Preparing the next generation of engineers, innovators, and technology pioneers.

Grade Level	Mathematics	Science, Engineering & Technology
Elementary (K–6)	Number Theory, Geometry Foundations, Measurement, Logical Reasoning, Applied Arithmetic	Scientific Inquiry, Basic Electricity, Circuits, Material Science, Energy Systems, Environmental Engineering
Middle School (7–9)	Algebra I & II, Geometry, Trigonometry, Data Analysis	Robotics Engineering, Computer-Aided Design (CAD), Embedded Systems, Programming, Electronics, Sensors & Automation
High School (10–12)	Pre-Calculus, Calculus, Statistics, Discrete Mathematics, Engineering Mathematics	Semiconductor Engineering, AI, ML, AIoT, VLSI Design, Advanced Robotics, Clean-Room Manufacturing

Elementary School (K–6): Building Scientific Curiosity

The elementary program transforms natural curiosity into disciplined scientific thinking through inquiry-based learning and hands-on experimentation.

Mathematical Foundations

- Logical reasoning, Quantitative thinking, Spatial visualization, Measurement systems, Problem-solving, Pattern recognition

Engineering Exploration

- Electricity, circuits, LEDs, magnets, structural engineering, renewable energy, forces, motion, friction, and gravity

Middle School (Grades 7–9): The STEM Crucible

Marks the transition from learning scientific concepts to applying engineering principles through real-world design challenges.

Core Disciplines

- **Mathematics:** Algebra I/II, Geometry, Trigonometry, Mathematical modeling

- **Robotics & Automation:** System design, mechanical assembly, sensor integration, autonomous programming
- **Programming:** Computational thinking, Python, data structures, IoT fundamentals

| High School (Grades 10–12): The Global Vanguard

Designed to mirror first-year university engineering programs, positioning graduates for leading global institutions.

Specialized Technical Focus

- **Semiconductor Engineering:** Physics, wafer production, lithography, chip fabrication, microelectronics
- **AI & Intelligent Robotics:** ML, Neural networks, Computer vision, Autonomous systems, AIoT
- **Precision Manufacturing:** Clean-room protocols, contamination control, manufacturing workflow optimization

| University Partnership & Graduate Profile

Partnerships: Benchmarked against MTSU, NC A&T, JCSU, and FAMU. Includes dual-enrollment, faculty mentorship, and virtual laboratory tools.

Graduate Profile: Graduates possess advanced math competency, engineering design proficiency, programming fluency, AI literacy, and systems thinking—prepared for careers in aerospace, cybersecurity, CS, and emerging tech industries.