

Horticulture: Skills and Proficiencies / Career Opportunities

Student Skill Development

Technical Skills

- Plant identification (annuals, perennials, shrubs, trees, turf grasses)
- Plant propagation (seed, cuttings, grafting, division)
- Greenhouse production and environmental control
- Soil preparation, fertility management, and composting
- Irrigation installation and water management techniques
- Pest, weed, and disease identification and control (IPM practices)
- Landscape design, installation, and maintenance
- Turfgrass establishment and management
- Pruning techniques for ornamental and fruit plants
- Safe handling and application of fertilizers and pesticides

Equipment or Tools Used

- Hand tools (pruners, loppers, shovels, hoes, rakes)
- Power equipment (weed eaters, hedge trimmers, chainsaws, blowers)
- Zero-turn and riding lawn mowers
- Irrigation tools (drip systems, sprinklers, timers, PVC tools)
- Greenhouse systems (mist systems, fans, heaters, shade cloths)
- Soil testing kits and meters (pH, moisture, nutrients)
- Sprayers (backpack and handheld) for fertilizer and pesticide application

Industry Certifications (if applicable)

- Overton Forklift Certification — 3-year certification
- Texas A&M Horticulture Technician Certification

Workforce or Career Skills Developed

- Strong work ethic, responsibility, and time management
- Teamwork and collaboration on projects
- Problem-solving and critical thinking in real-world situations
- Communication skills (customer service and team interaction)
- Leadership and project management skills
- Attention to detail and quality control
- Basic business and entrepreneurship skills (bidding jobs, pricing, client relations)
- Adaptability and ability to work in outdoor and changing environments
- Professionalism and job readiness