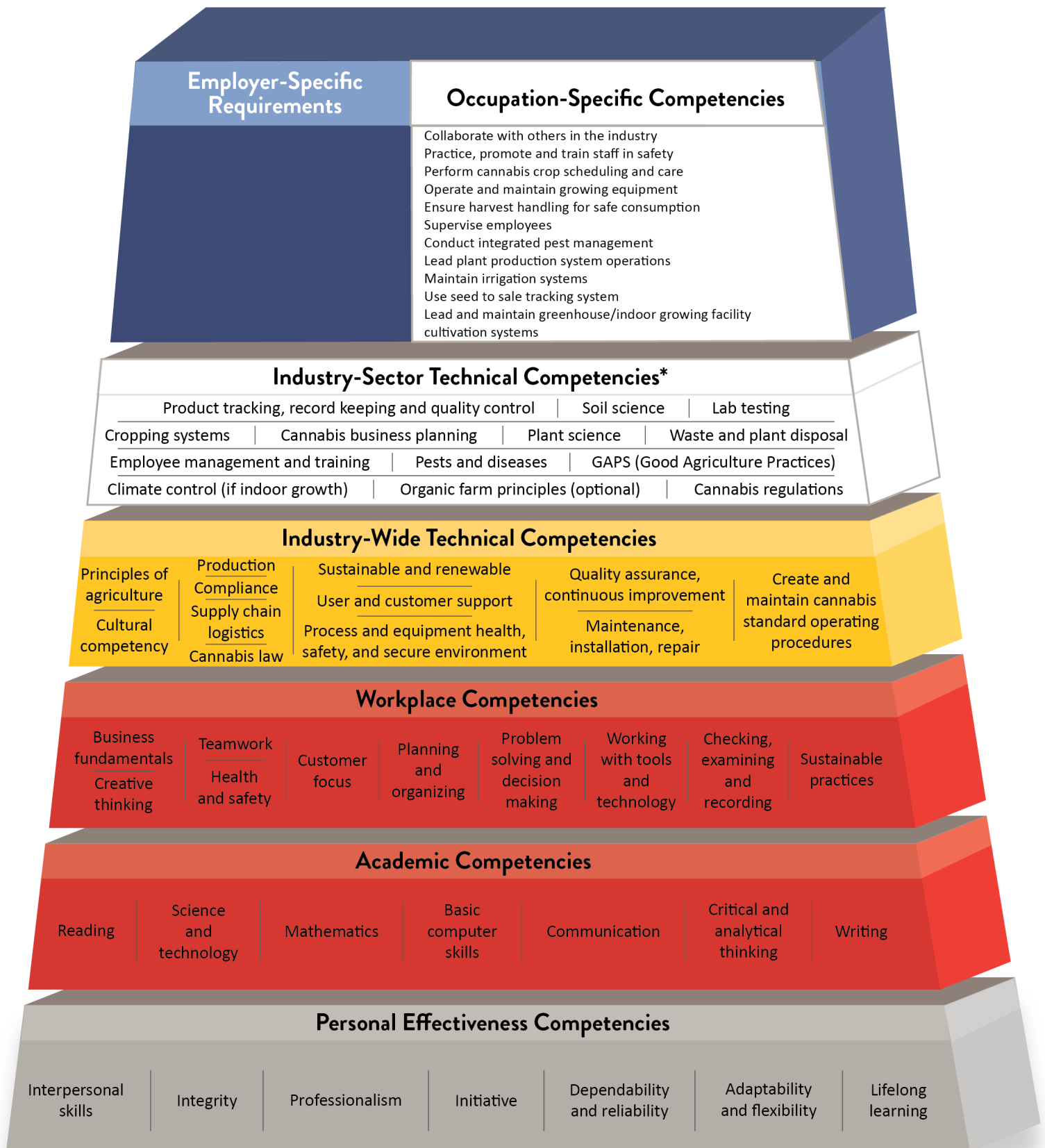


Minnesota Dual-Training Pipeline

Competency Model for Legal Cannabis Industry

Occupation: Cannabis Cultivation Supervisor



Based on: Building Blocks Competency Model, Employment and Training Administration, United States Department of Labor, August 2017.

* Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job training opportunities.



Competency Model for Cannabis Cultivation Supervisor

Cannabis Cultivation Supervisor – An individual who leads a team in caring for and administering processes to ensure optimal production of cannabis flower, and cannabis plants as defined in Minnesota law. Individuals in this role are often responsible for all aspects of plant growth, plant care, and facility repair and maintenance at the legal cannabis industry cultivation facility.

Industry-Sector Technical Competencies

Related Instruction for dual training means the organized and systematic form of education resulting in the enhancement of skills and competencies related to the dual trainee’s current or intended occupation.

- **Waste and plant disposal** – Know best practices for safely and efficiently disposing of the parts of the cannabis plant that are not used as part of cannabis flower or cannabis product sales. This should incorporate efforts to improve sustainability and limit waste being sent to landfills.
- **Employee management and training** – Understand employee management principles and training techniques.
- **Plant science** – The process of plant propagation and knowing how to select plants and seeds, propagate plants, transplant, prune, clone plants, and maintain plant quality and growth. Understand the general principles of how cannabis plants work and grow from seed to full plant maturity.
- **Soil science** – Understanding of the principles of creating optimal soil conditions for growing cannabis plants.
- **Cropping systems** – Knowledge of principles used to manage crop productivity with watering systems and minimal use of nutrients, pesticides, and cultivation for a cannabis crop.
- **Organic farm principles (optional)** – Understand rules, regulations, and best practices for growing organic products. Knowledge of the National Organic Program standards.

- **Cannabis regulations** – Knowledge of the current state and local regulations governing the growth and production of cannabis flowers, cannabis plants and cannabis products in Minnesota. Understand the different requirements that are involved in growing adult-use cannabis flower and/or medical cannabis flower depending on the type of cannabis cultivation operation.
- **Cannabis business planning** – Understand how to write and follow a working business plan to manage production costs, labor, transportation and supplies to maximize potential profits for a cannabis business.
- **Lab testing** – Understand the processes necessary to prepare the cannabis plant and flower for lab testing to assess regulatory requirements for things such as levels of potency, weighing, etc. as part of the production process.
- **Climate control (if indoor growth)** – Understand how to ensure optimal moisture, temperature, and lighting systems to have best possible growth of cannabis in an indoor setting. This includes coordinating HVAC maintenance and repair is properly handled and addressed.
- **Product tracking, record keeping and quality control** – Know how to properly track cannabis plant through all stages of growth and make sure that when it is ready for harvest, it will continue to be tracked and properly labeled. Also know how to keep records of cannabis through all cycles of growth, harvest, and packaging.
- **Pests and diseases** – Understand the common pests and diseases that might inhibit cannabis plant growth and how best to safely address those problems.
- **GAPS (Good Agriculture Practices)** – Understand science-based good agriculture practices (GAPS) program and how to reduce risks of microbial contamination.

Occupation-Specific Competencies

On-the-Job Training (OJT) is hands-on instruction completed at work to learn the core competencies necessary to succeed in an occupation. Common types of OJT include job shadowing, mentorship, cohort-based training, assignment-based project evaluation and discussion-based training.

- **Lead and maintain greenhouse/indoor growing facility cultivation systems** – Understand management of all systems and controls of the greenhouse/indoor growing facility including ventilation, climate controls, lighting, moisture controls, and indoor watering irrigation systems. Includes maintenance and upkeep of greenhouse/indoor growing facility.

- **Collaborate with others in the industry** – Know how to collaborate with other businesses within the legal cannabis industry.
- **Practice, promote and train staff in safety** – Ability to use proper industry standards to maintain a safe work environment to ensure personal well-being for all staff at the cultivation business. Know how to train staff on how to be safe in the plant production system and potentially offer staff ability to earn OSHA 10 or OSHA 30 types of credentials.
- **Perform cannabis crop scheduling and care** – Knowledge of when and how to plant, weed, prune, harvest, rotate or move plant materials to optimize productivity and protect cannabis plants through systems change from seed to harvest.
- **Operate and maintain growing equipment** – Ability to create, operate and maintain trellising, irrigation systems, hand tools, pack tools, clipping, etc.
- **Ensure harvest handling for safe consumption** – Ability to harvest cannabis and then post-harvest to properly clean, cool, sort, pack, store, cure, and label cannabis as well as transport crop for processing and sales in a manner that also protects plants' overall appearance and quality.
- **Supervise employees** – Understand and exercise the proper human relations and best practices for supervising the day-to-day tasks of cultivation staff.
- **Conduct integrated pest management** – Knowledge of integrated processes that prevent and reduce pests in cannabis cultivation, including but not limited to weeds, rodents, insects, pathogens, and diseases.
- **Lead plant production system operations** – Awareness of general farm production practices and the operations required for running a successful cannabis cultivation business.
- **Maintain irrigation systems** – Know how to maintain systems for watering equipment that efficiently provides the most appropriate amount of water to cannabis plants grown to ensure peak production and growth.
- **Use seed to sale tracking system** – Know how to utilize the technology that tracks cannabis from its beginning seed to the point of sale to the final adult-use consumer and/or medical patient.

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