

Kansas Plant Systems Skills & Competencies Certificate – Support Document

Examples of Pathway Skills

This list is not exhaustive

Below are **examples** of the **application-level skills** applicants describe when completing the Skills & Competencies Gained portion of the certificate application.

Plant Systems Pathway

- Identify career opportunities in horticulture and the green industry career pathway
- Classify plants according to the hierarchical classification system, life cycles, plant use and as monocotyledons or dicotyledons
- Apply the knowledge of seed and fruit structures to plant culture and use
- Evaluate plant responses to varied light color, intensity, and duration
- Formulate and prepare growing media for specific plants or crops
- Apply fundamentals of Mendelian genetics
- Conduct tests associated with seed germination rates, viability and vigor
- Employ pest management strategies to manage pest populations, assess the effectiveness of the plan and adjust the plan as needed
- Estimate forage productivity based on precipitation effectiveness and frequency
- Analyze various pasture/ranges and determine range condition
- Construct grazing intensity and timing recommendations based on information provided
- Design, implement and evaluate a plan to maintain optimal conditions for plant growth
- Evaluate techniques for grading, handling and packaging plants and plant products
- Evaluate environmental and consumer concerns regarding pest management strategies
- Calculate operation costs and greenhouse structure costs
- Propagate plants using sexually and asexually methods
- Demonstrate bedding plant production
- Describe control methods, sanitation, chemical formulations, and equipment used to control pests in the greenhouse
- Identify basic principles of floral arranging and floral design
- Construct a one sided arrangement
- Demonstrate techniques for the processing of cut plant materials

A complete lists of Plant Systems Pathway Knowledge and Skills can be found at ksde.org/default.aspx?tabid=449 under the title “2016-2017 Plant Systems Pathway Design Sheet”.

Please refer to this document when completing the Skills & Competencies Gained portion of the certificate application.