

Cluster: STEM			
Administrative Rule	Endorsement Name	Old Rules	New Rules
<p>OLD: 24:15:06:13</p> <p>NEW: 24:15:10:07 24:15:10:08(8)</p>	STEM Cluster Endorsement	<p>Formerly Technology Education</p> <p>Requires completion of career and technical education alternative route to certification; or Bachelors in education degree</p> <p>AND</p> <p>1. 18 semester hours, to include three semester hours in each of the following: the four clusters of communications, manufacturing, construction, and energy/power/transportation; methodology of teaching technology; and safety OR</p> <p>2. Passage of the designated state test without the verification of coursework</p>	<p>Requires, completion of career and technical education traditional certification or alternative route to certification.</p> <p>AND either</p> <p>1. 15 credits total, including: at least 2 credits in each of the following: -robotics -engineering and at least 1 credit in each of the following: -aviation -computer science -energy OR</p> <p>2. Passage of the following state certification exam: Technology Education Praxis (5051)</p>

Cluster: STEM (cont.)			
Administrative Rule	Endorsement Name	Old Rules	New Rules
<p>OLD: 24:15:06:59</p> <p>NEW: 24:15:10:01 24:15:10:02(26)</p>	<p>Engineering & Robotics Pathway Endorsement</p>	<p>Formerly 9-12 engineering</p> <p>Requires completion of career and technical education alternative route to certification; or Bachelors in education degree</p> <p>AND</p> <p>1. Completion of state-approved national certification training in engineering</p>	<p>Requires, completion of career and technical education traditional route to certification; OR CTE specialist route to certification</p> <p>AND</p> <p>1. 9 credits total, including: at least 3 credits in each of the following: -engineering -robotics OR</p> <p>2. An AA Degree in one of the following: Robotics Engineering Technology Mechatronics Architectural Engineering Technology Civil Engineering Technology Construction Management Technology Land Surveying Science Technology Mechanical Engineering Technology OR</p> <p>3. 4,000 hours of validated work experience in a related field within the previous five years, including any field of engineering or technical aspect of robotics</p>

Cluster: STEM (cont.)			
Administrative Rule	Endorsement Name	Old Rules	New Rules
<p>OLD: None</p> <p>NEW: 24:15:10:01 24:15:10:02(27)</p>	<p>Energy Pathway Endorsement</p>	<p>New endorsement. No corresponding old rules.</p>	<p>Requires, completion of career and technical education traditional route to certification; OR CTE specialist route to certification</p> <p>AND</p> <p>1. 9 credits total in energy related coursework OR</p> <p>2. An AA Degrees in one of the following: Electrical Utilities & Substation Technology Power Line Construction & Maintenance Propane & Natural Gas Technologies Utilities Technology-Heating & Cooling Utilities Technology-Power Line Wind Turbine Technology Energy Technology OR</p> <p>3.4,000 hours of validated work experience in a related field within the previous five years, including any energy related occupation</p>

Cluster: STEM (cont.)			
Administrative Rule	Endorsement Name	Old Rules	New Rules
<p>OLD: None</p> <p>NEW: 24:15:10:01 24:15:10:02(28)</p>	Aviation Pathway Endorsement	New endorsement. No corresponding old rules.	<p>Requires, completion of career and technical education traditional route to certification; OR CTE specialist route to certification</p> <p>AND</p> <p>1. 9 credits total in aviation related coursework OR</p> <p>2. An Associate’s degree in Aviation OR</p> <p>3. 4,000 hours of validated work experience in a related field within the previous five years, including Agri-Aviation or Aviation Technician</p>
<p>OLD: 24:15:06:59</p> <p>NEW: 24:15:10:01 24:15:10:06</p>	PLTW Engineering Pathway Endorsement	<p>Formerly 9-12 engineering</p> <p>Requires completion of career and technical education alternative route to certification; or Bachelors in education degree</p> <p>AND</p> <p>1. Completion of state-approved national certification training in engineering</p>	<p>Requires, completion of career and technical education traditional route to certification; OR CTE specialist route to certification</p> <p>AND</p> <p>1. Completion of PLTW Engineering Training</p>