

Notice of Change

New Product Implementation and Release Website Information

Trade/Occupation Name(s) & Code(s): Electrician – Construction and Maintenance (309A)
Electrician – Domestic and Rural (309C)
Industrial Electrician (442A)

Implementation Date of New Curriculum Standard:

Level 1 starting September 1, 2024

Level 2 starting September 1, 2025

Levels 3 & 4 starting September 1, 2026

Implementation Plan:

Curriculum Standards:

- *See detailed implementation table for existing and new apprentices.*

Standard Access

Curriculum Standard:

- The new Curriculum Standard will be available on the Skilled Trades Ontario website.
- The existing Curriculum Standard will remain on the Skilled Trades Ontario website during the phasing-in time frame for all levels.
- The new Curriculum Standard will be available and distributed to all Training Delivery Agents (TDAs) through the Ministry of Labour, Immigration, Training and Skills Development.

General Description of Changes

Summary:

The new Curriculum Standard for the 3 Electrical Trades represents an enhanced 4-Level structure which substantially harmonizes this curriculum with the Red Seal Occupational Standards (RSOSs) for both Industrial and Construction Electrician as well as addresses the critical deficiencies, gaps and needs of the previous out-of-date 2003 standard.

The new Curriculum Standard reorganizes content at both the reportable subject and learning outcome level to create a more holistic and logical organization of material, that also more accurately and effectively parallels the way the Red Seal material is organized.

The new Curriculum Standard reduces repetition and overlap through a clearer reorganization of reportable subjects, topics, outcomes and objectives – leading to less redundancy and clearer depiction of what is intended.

Furthermore, the new Curriculum Standard also address the following:

- The divergent learning needs of each of the 3 Electrical trades: By enhancing non-common core reportable subjects at the final 4th school level for Industrial Electrician

and Electrician – Construction and Maintenance, the trade specific needs of each of those 2 trades is addressed separately and distinctly. Outcomes and objectives in the non-common core reportable subjects were tailored to meet specific trade needs (e.g., enhancements at level 4 Pneumatic and Hydraulic Systems as well as Advanced Instrumentation to reflect the primary role of the Industrial Electrician or the Specialty Installations reportable subject to reflect the primary role of the Electrician – Construction and Maintenance.)

- Changes in code requirements: The new Curriculum Standard was reviewed extensively against Canadian Electrical Code and Ontario Electrical Safety Code requirements, thereby modernizing the new standard.
- Clarity in learning outcomes to support consistency in delivery: The new learning outcomes, objectives and details have been enhanced and adapted to support the more consistent delivery of the reportable subjects by all Training Delivery Agents. The Supplemental Resource Guide also provides additional resources to support delivery.

Hours and Reportable Subject Breakdown:

The total weeks/hours for each level are as follows:

- Level 1 – 270 hrs (9 weeks) – common core for all 3 Electrical Trades
- Level 2 – 270 hrs (9 weeks) – common core for all 3 Electrical Trades
- Level 3 – 270 hours (9 weeks) – common core for all 3 Electrical Trades
- Level 4 Industrial Electrician – 240 hours (8 weeks)
- Level 4 Electrician-Construction and Maintenance – 240 hours (8 weeks)

The Reportable Subject Breakdown by Level and Trade is as follows:

- Common Core Level 1 (6 Reportable Subjects):
 - 3365 Communication and Documentation
 - 3366 Introduction to the Canadian Electrical Code (CEC)
 - 3367 Trade Practices
 - 3368 Installation and Maintenance Methods
 - 3369 Electrical Fundamentals
 - 3370 Drawings, Standards and Specifications Fundamentals
- Common Core Level 2 (6 Reportable Subjects):
 - 3371 Electrical Systems
 - 3372 Electronic Fundamentals
 - 3373 Drawings, Specifications and Standards Intermediate
 - 3374 Motor Controls and Devices
 - 3375 Communication and Monitoring Systems
 - 3376 Canadian Electrical Code II
- Common Core Level 3 (7 Reportable Subjects):
 - 3377 Renewable Energy Generating and Storage Systems
 - 3378 Electrical Theory and Applications
 - 3379 PLC Fundamentals

- 3380 Power Electronics
- 3381 Drawings, Specifications and Standards Advanced
- 3382 Introduction to Instrumentation
- 3383 Canadian Electrical Code III
- Common Core level 4 (5 reportable subjects):
 - Building Automation Systems (3384)
 - Professionalism and Ethics (3385)
 - Power Conditioning (3386)
 - Advanced Motors and Generators (3387)
 - High Voltage Service and Operation (3390)
- Industrial Electrician only - level 4 (3 reportable subjects):
 - Advanced Instrumentation (3388)
 - Pneumatic and Hydraulic Control Systems (3389)
 - Automated Control Systems (3391)
- Electrician, Construction and Maintenance only - level 4 (2 reportable subjects):
 - Specialty Installations (3392)
 - Canadian Electrical Code IV (3393)

Additional Details:

- The new Curriculum Standard reflects a new structure where many reportable subjects, learning outcomes and objectives focus on systems. This reflects recommendations and structure from Red Seal harmonization.
- The new Curriculum Standard uses a reportable subject naming convention that is much more accurate in demonstrating what the content reflects and parallels Red Seal terminology more accurately (e.g., PLC Fundamentals vs Installation Methods III).
- The new Curriculum Standard reflects a significant and substantial harmonization with the current Red Seal Occupational Standards for Industrial Electrician and Construction Electrician. The new Curriculum Standard is significantly aligned according to the topic levelling and sequencing recommendations for both Construction Electrician and Industrial Electrician. While there are some differences, these are minor, and the new and restructured content addresses the spirit of the Red Seal recommendations through a parallel structure in the new Curriculum Standard.
- Previous distinctions in applications and practical outcomes at levels 1 through 3 between residential, commercial, industrial were changed in the new Curriculum Standard. This prior approach did not adequately reflect the needs of Industrial Electrician Apprentices. The new Reportable Subjects and their corresponding outcomes and objectives throughout the document, when common core, are written more holistically, though some distinct references exist – bigger picture approach.
- The CEO endorsed this Standard on June 6, 2023.