Curriculum Modernization Stakeholder Engagement

What We Heard

December 2022

Safety Codes Council

TABLE OF CONTENTS

INTRODUCTION

The Safety Codes Council develops and delivers training for the purpose of certifying safety codes officers. Safety codes officer (SCO) training includes base competency and technical code courses, which provide the knowledge that SCOs need to perform their roles and responsibilities under the Safety Codes Act (the Act) including issuing permits, performing inspections, and providing compliance monitoring services.

The Council has developed a framework for improving SCO training called Curriculum Modernization. The Council engaged safety system stakeholders including SCOs, accredited organization, code subject matter experts (SMEs), and construction industry stakeholders between November 2021 and June 2022 to collect feedback prior to moving forward with implementing Curriculum Modernization. Overall, stakeholders agreed there is considerable room for improvement, a finding supported by the Council's 2020 Stakeholder Survey where the top suggestion for areas of improvement at the Council was a more practical and up-to-date education curriculum. This document provides an overview of what we heard during our engagements with stakeholders. These engagements will inform the development of implementation options. Stakeholders will be engaged throughout the implementation stages of this project.

BACKGROUND

The safety codes system is evolving with technology, materials, and codes that are changing rapidly. To ensure the curriculum is meeting the needs of the system, the Council engaged The Performance Group, an instructional design firm, to review the curriculum. This review was completed with extensive engagement with system stakeholders between 2019 and 2021. This review resulted in an SCO Generic Competency Profile and Curriculum Development Plan that identified key educational shifts required to ensure competencies are addressed. While this review focused on the four construction disciplines, the proposed approach to updating the SCO curriculum provides a sound framework for how SCOs are trained for all disciplines.

Based on this work, the Council has developed a general framework for Curriculum Modernization that will lead to improvements for all disciplines through the update of the Council's base competency curriculum, and through shifts in how technical code training is delivered.

A modernized curriculum will achieve the following outcomes:

- Certification results in knowledgeable and capable SCOs
- SCOs effectively interpreting codes and standards
- SCOs having the critical thinking skills to make good decisions in the field (e.g. effectively evaluate alternative solutions; provide effective compliance monitoring)
- Certified SCOs remaining up-to-date on emerging technologies, codes, and standards

The curriculum will address the following four competency groupings:

TECHNICAL SAFETY CODES KNOWLEDGE	GENERAL SAFETY SYSTEM KNOWLEDGE	SCO PRACTICE	SCO COMMUNICATION SKILLS
Interpretation Application Boundaries and interactions across codes / disciplines	Safety Codes Act, regulations, policies QMP Governance	SCO Roles and Responsibilities The Permit Lifecycle Permit, application, plans review, inspections, variances, etc Investigations	Critical thinking and problem solving Ethics and professionalism Customer service Personal and site safety Relationship building Communication Planning and organization Continuous improvement

The following are key priorities for modernizing the SCO curriculum to ensure that key competencies are addressed:

- Base Competency Training: A modernized curriculum will address core SCO competencies identified in the SCO Competency Profile by providing consistent training on SCO roles and responsibilities, and best practices in administering compliance monitoring (plans reviews, permit administration, inspections, compliance enforcement, alternative solutions, etc.).
- Practical and Applied Learning: A modernized curriculum will provide more opportunities for students to demonstrate their knowledge through practical application as a component of certification (e.g. mentorships, practicums etc.). Specific options for practical and applied learning will be developed with stakeholders.
- Enhanced Technical Training: The current technical code training components of the curriculum are focused primarily on the ability of a student to identify and recall key terms rather than testing a student's ability to apply their knowledge. The Council will explore options to make use of adult learning best practices to assess a student's ability to interpret and apply code knowledge.
- Dynamic Use of Media: A modernized curriculum will use enhanced media to provide an engaging experience to students.
- Continuing Education: By addressing gaps in the curriculum, certified SCOs will be able to utilize SCO courses and modules for continuing education to maintain knowledge and competencies.

STAKEHOLDER ENGAGEMENT

Engagements included focus groups and facilitated discussions with key stakeholders including safety codes officers, SCO member associations, system users, industry representatives, industry associations, and sub-councils. The purpose was to gather feedback to validate the Council's plan to make the above educational shifts in its curriculum. The following questions were discussed with stakeholders:

- What are your reactions to the proposed approach to modernizing the SCO curriculum?
- What are your thoughts on practical and applied learning?
- Would you be supportive of mentorships or practicums?
- What are the primary competency gaps you encounter when hiring new SCOs?
- Thinking about how the Council's current curriculum is structured, what do you think should be maintained (what is working well)?

The Council would like to thank everyone who took part in the Curriculum Modernization stakeholder engagement. An overview of stakeholders engaged is included below:

Safety Code System Stakeholders and Subject Matter Experts
- Large Urban Municipalities
- Small and Medium Sized Municipalities
- Rural Municipalities
- Safety Codes Officers
- QMP Managers and Administrative Staff
- Technical Code Experts
- Educational Institutions

Sub-councils
- Building Sub-council
- Plumbing Sub-council
- Gas Sub-council
- Private Sewage Disposal Systems Sub-council
- Fire Sub-council
- Alberta Electrical Utilities Sub-council
- Electrical Sub-council

Industry organizations
- ABOA (Alberta Building Officials Association)
- ACA (Alberta Construction Association)
- EIAA (Electrical Inspectors Association of
- Alberta)
- SMACNA-AB (Sheet Metal Contractors
- Association of Alberta)
- AMOS (Alberta Mechanical Officials Society)

FINDINGS

All engagements began with asking stakeholders for their general reaction to the proposed educational enhancements. Stakeholders were generally supportive of the proposed approach to modernizing the SCO curriculum. The following were major themes that came out of the discussions:

Theme 1 – Practical and On-the-Job Learning
Stakeholders support increasing the use of practical and on-the-job learning such as mentorships and practicums as a key educational strategy for training competent SCOs. For any mentorship or on-the-job training requirements, stakeholders noted that the Council should standardize the minimum requirements of mentorships or practicums to ensure consistency throughout the province, but allow organizations to determine how best to meet those standards. For example, some of the larger accredited organizations currently have robust mentorship programs in place, and those organizations should be given the flexibility to maintain current programming so long as it meets minimum standards established by the Council. Smaller accredited organizations showed an interest in practical and on-the-job learning as an opportunity to enhance the training of newly certified SCOs, but noted that capacity to deliver on mentoring could be a challenge for some due to lack of staff resources.

Key Takeaways
- There is broad support for applied learning such as mentorship or practicums to be included in SCO training.
- Organizations should be given the flexibility to maintain internal mentorship programs or approaches, so long as they meet the Council's minimum standards, to enable flexible approaches to training and mentoring SCOs on the job.
- The varying levels of municipal capacity should be considered in the development of options for practical and on-the-job learning, including financial, staff resources, and time implications.
- The Council should create consistent standards for any mentorships or practicum requirements that can be met by organizations with differing levels of capacity.

Theme 2 – Application-Based Learning and Assessment

Stakeholders voiced strong support for the Council's proposed shift towards a more dynamic approach of teaching SCOs to navigate and apply the code to make decisions. Some stakeholders identified that shifting the focus of education towards code interpretation and application through the use of scenarios and other forms of application-based assessment would better equip SCOs with the skills they need to succeed in the field. These stakeholders noted that it is not possible to memorize the code, and therefore the focus of training should be on navigating and applying the code. Several stakeholders questioned how this type of instruction could be accomplished given the complexity of code application in practice, but were supportive of the general intent. Some stakeholders suggested that the courses should still provide a comprehensive overview of code content, which may involve some level of assessment that focuses on recollection rather than application.

Most stakeholders agreed that SCOs should have the ability to apply their code knowledge prior to being fully certified. It was noted that since the level of on-the-job training and mentorship varies between organizations, competency development likely varies among new SCOs. A standardized approach to practical learning was discussed as a potential training enhancement.

Key Takeaways
- There is a need to ensure SCOs have the ability to apply the code to complex situations before they are fully certified.
- There is support for moving away from memorization and towards practical application and the use of scenarios and other applied assessments.

Theme 3 – Peer Support & Networking

Stakeholders identified the opportunity to create and maintain a peer support network to supplement the formal training and education of an SCO. These stakeholders suggested that creating a network for SCOs to share information would increase their knowledge and competencies. Stakeholders have indicated that newly trained and certified SCOs require more information on where and who they can contact with questions; this is especially true in jurisdictions where there may be a smaller number of SCOs employed.

Key Takeaways
- SCOs may benefit from a formal network of practitioners to discuss common issues, questions, code matters, and other items of importance.
- The Council may be able to create forums within its e-learning platform to encourage collaboration.
- Existing SCO associations for specific disciplines such as ABOA, EIAA, and AMOS should be engaged to identify ways to leverage existing SCO knowledge to provide opportunities to share knowledge.
- Some disciplines have created forums where contractors and SCOs meet regularly to discuss the code, which has anecdotally lead to greater consistency and code compliance.

Theme 4 – Accessibility and Cost

Stakeholders are generally supportive of the major educational shifts identified above, but noted that the Council should be considerate of the time and financial implications of creating additional requirements. For example, the design of mentorship or practicum components should consider the capacity constraints of smaller organizations, and provide flexible options to ensure that requirements do not create barriers to attracting staff. Stakeholders would like the Council to ensure training remains accessible and continue to provide online delivery options. That being said, there was interest in increasing the availability of in-person learning opportunities, especially where practical and hands-on components are being added to the curriculum.

Key Takeaways:
- The Council needs to ensure training and education remain accessible to reduce barriers to accredited organizations accessing employees.
- Capacity constraints of accredited organizations should be considered in the development of new curriculum components such as practicums and mentorships.
- The Council should pilot any new components (e.g. mandatory mentorships or practicums) and evaluate impact and benefits before making broad changes.

Theme 5 – Key Competencies
In addition to asking for feedback on the Council's vision for a modernized SCO curriculum, stakeholders were asked to identify specific competencies that should be highlighted in Council training. The purpose of this was to ensure that the training adequately addresses key needs of stakeholders. The following were highlighted by stakeholders:

- Inspection report writing;
- Using intent and function statements;
- Plans reviews;
- Understanding of where disciplines interact;
- Variances;
- Administrative penalties;
- Understanding QMPs;
- Orders and appeals;
- Powers, roles, and responsibilities under the Act;
- How to educate clients on their options ;
- Navigation (e.g. reading land descriptions);
- Dispute resolution and negotiation ;
- Administrative skills such as documentation and note taking;
- Soft skills including communication, time management, and task prioritization.

Stakeholders validated that gaps in the current curriculum relate to general SCO knowledge and skills which could be addressed by expanding the base curriculum to provide consistent training on the roles and responsibilities of the SCO in permitting, inspections, and compliance monitoring.

Key Takeaways:
- The Council should consider how the above competency needs could be addressed through the curriculum when implementing the Curriculum Modernization project.
- There is an opportunity to make the SCO curriculum available to SCOs in the field to support with continuing professional development and learning once they are in the field.

NEXT STEPS

The Council will begin implementation of the Curriculum Modernization initiative in 2023. Feedback received through this engagement will inform this development work. Stakeholders will be engaged on specific components of the curriculum as it is being developed.