



Additional Qualification Course Guideline Senior Division, Environmental Science

Schedule A – Teachers' Qualifications Regulation

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Table of Contents

Preface	1
Introduction	2
Section A: Additional Qualification Course Foundations	3
Professional Learning in Ontario	3
Ontario’s Learning Context	4
Accreditation – Program of Additional Qualification	7
Section B: Additional Qualification Course Design	8
Additional Basic Qualification (ABQ) – Schedule A (Single Session)	8
Additional Qualification Course Requirements	8
Resources	13

Preface

Additional Qualification (AQ) course guidelines are designed following extensive consultation and feedback from course providers, course writers and members of the teaching profession.

AQ course guidelines serve as the framework for providers and instructors to develop courses.

AQ course guidelines are organized in the following two sections:

Section A: Additional Qualification Course Foundations

This section outlines the fundamental contexts that are embedded in the content of the AQ course. Education in Ontario embodies these to support educator and learner well-being. These fundamental contexts are essential to foster safe, welcoming and inclusive learning environments for all learners and educators.

Section B: Additional Qualification Course Design

This section identifies the regulatory elements and core concepts that are accreditation requirements for all AQ courses. This section also outlines specific content that allows educators to gain in-depth knowledge and skills related to the AQ course.

In this document, all references to candidates are to educators enrolled in the AQ course. References to learners indicate those enrolled in school programs.

Introduction

The Ontario College of Teachers (the College) is the self-regulating body for the teaching profession in Ontario and is responsible for:

- establishing and enforcing professional standards and ethical standards applicable to members of the College
- providing for the ongoing education of members of the College
- accrediting Additional Qualification (AQ) courses.

The College supports teaching excellence by preparing educators to work in varied and diverse educational contexts and geographical settings:

- English language public school
- French language public school
- English language Catholic school
- French language Catholic school
- First Nations school
- Provincial school
- Private school
- Independent school
- Urban setting
- Rural setting
- Remote setting.

This AQ course guideline provides a framework upon which to develop courses that meet accreditation requirements established in Regulation.

Section A: Additional Qualification Course Foundations

Placing students' interests and well-being first is at the core of teaching in Ontario.

Professional Learning in Ontario

Professional learning is an integral part of the teaching profession. Educators participate in ongoing professional learning with the goal of improving outcomes for Ontario learners.

Educators complete a four-semester, pre-service teacher education program to become qualified to teach in Ontario. Throughout their career, they continue to engage in professional learning offered in various formats such as sessions offered by Ministry of Education, School Board or community partners, professional reading and Additional Qualification (AQ) courses.

AQ courses are designed by educators to inform and enhance professional practice. These courses allow educators to deepen their knowledge and skills in design and delivery of specific programs. They also support professional practice by preparing educators for specific roles within the educational community.

When engaging in professional learning, educators are guided by the *Foundations of Professional Practice*.

Professional Learning Framework for the Teaching Profession

The *Professional Learning Framework for the Teaching Profession* describes opportunities and processes that support ongoing professional learning for educators. AQ courses offer an opportunity for educators to inform and advance their professional knowledge, skills, practices and values.

The AQ Course *Senior Division, Environmental Science* reflects **adult learning theories and processes** that foster critical reflection, dialogue and inquiry. Instructors facilitate adult learning practice that provide candidates with professional learning experiences related to teaching, learning and assessment of learners.

Ethical Standards for the Teaching Profession



Standards of Practice for the Teaching Profession



Standards based resources can be found on the [College web site](#).

Ontario's Learning Context

Ontario educators recognize that student learning is influenced by the individual student's strengths, needs, interests and identity. Education in Ontario is complex and dynamic. Ontario's schools are learning communities that reflect the province's diversity. The *Ontario Human Rights Code* serves as the foundation for equitable, inclusive and accessible education.

The teaching profession in Ontario continues to evolve in response to the current and everchanging diversity of learners. Thus, educators are called upon to follow foundational principles that inform instructional practice. Through ongoing professional learning, educators deepen their understanding of the principles outlined below. In so doing, Ontario educators enhance their professional practice to support student learning and well-being.

Anti-Oppression Foundation

An Anti-Oppression Foundation acknowledges that systemic manifestations of power and privilege have led to multiple forms of oppression, injustices and inequalities. It recognizes that educator and student learning and well-being are impacted by biases and assumptions related to power and privilege. Educators have a shared ethical and professional responsibility to identify and challenge individual and systemic barriers to support the learning, well-being and inclusion of each learner.

Truth and Reconciliation Commission of Canada: Calls to Action

Ontario's educators are responsible to uphold the *Truth and Reconciliation Commission of Canada: Calls to Action* and align their professional practice with the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP). They engage in authentic reconciliatory action by exploring and integrating First Nations, Métis, and Inuit histories, perspectives and knowledge systems, in teaching and learning. Educators, as treaty partners, acknowledge that conversation and collaboration with Indigenous communities will guide them on the reconciliation journey.

Aménagement Linguistique Policy (PAL)

Section 23 of the Canadian Charter of Rights and Freedoms guarantees the French or English linguistic minority populations of a province the right to instruction in their own language.

In Ontario, the Aménagement Linguistique Policy (PAL) outlines the unique mandate of French-Language schools. Educators act as ambassadors and model the French language and francophone culture for learners. Educators deepen their understanding of learners' linguistic and cultural francophone identity. They collectively develop a provincial, national and international sense of belonging to *la Francophonie*.

Accessibility for All

Accessibility for all is rooted in the Accessibility of Ontarians with Disabilities Act, 2005. Accessibility, inclusion, equity and diversity are fundamental to everyday practice for teaching and learning. Accessibility creates opportunities for all learners to fully participate in their learning, showcase their abilities and benefit from all aspects of the education system. The implementation of adaptive strategies, accessible content and inclusive design for teaching and learning honours the strengths and needs of each learner.

Learning for All – Special Education

Educators believe that all students can learn. As stipulated in the Education Act, educators are required to provide programs and services that respond to each learner's unique needs and strengths. Evidence-based teaching and learning practices that are learner-centred provide equitable opportunities for all. Inclusive learning environments respect the identity of each learner and support their intellectual, social, emotional and physical development.

Accreditation – Program of Additional Qualification

Accreditation requirements for Additional Qualification (AQ) courses are articulated in O. Reg. 347/02: *Accreditation of Teacher Education Programs*, s. 24.

A program of additional qualification may be granted accreditation under this Regulation if the following requirements are satisfied:

1. The program content and expected achievement of persons enrolled in the program match the skills and knowledge reflected in the College's "Standards of Practice for the Teaching Profession" and the "Ethical Standards for the Teaching Profession" and in the program guidelines issued by the College.
2. The program satisfies the requirements of the teachers' qualifications regulation for entry of an additional qualification on the general certificate of qualification and registration of a person who successfully completes the program.
3. The program curriculum is current, references the Ontario curriculum, relevant legislation and government policies and represents a wide knowledge base in the program's area of study.
4. The course content of the program makes appropriate provision for the application of theory in practice.
5. The program's format and structure are appropriate for the course content of the program.
 - 5.1 The program consists of a minimum of 125 hours of work acceptable to the Registrar.
6. There is clear identification of the goals of the program, with a formal testing or assessment mechanism to determine the level of successful completion of the program.
7. The majority of the educators teaching the program have Ontario teaching experience relevant to the program.
8. The provider maintains adequate internal controls to preserve the integrity of student records relating to the program.
9. The provider is committed to continuous improvement and quality assurance of the program and, if the program is an existing program, has implemented measures demonstrating that commitment.

O. Reg. 347/02, s. 24; 2009, c. 33, Sched. 13, s. 3 (2); O. Reg. 182/10, s. 8.

Section B: Additional Qualification Course Design

Additional Qualifications (AQs) for educators are identified in O. Reg. 176/10: *Teachers' Qualifications Regulation*. This regulation includes courses that lead to AQs, the Principal's Development Qualification, the Principal's Qualifications, the Primary Division, the Junior Division, the Intermediate Division, the Senior Division and the Supervisory Officer's Qualifications. A session of a course leading to an AQ shall consist of a minimum of 125 hours as approved by the Registrar. Successful completion of the course is recorded on the candidate's Certificate of Qualification and Registration.

Additional Basic Qualification (ABQ) – Schedule A (Single Session)

This Schedule A course allows educators to gain knowledge and skills in the design and implementation of concepts specific to environmental science in the senior division.

Additional Qualification Course Requirements

The AQ course *Senior Division, Environmental Science* enables candidates to advance their professional practice through focussed learning in the following areas:

- Curriculum Knowledge
- Pedagogical Strategies
- The Learning Environment.

This AQ course is designed and delivered using adult learning instructional practices.

Senior Division, Environmental Science develops and applies candidates' subject-specific professional practice, knowledge and skills in the following required elements:

Anti-Oppression Foundation

- theories and pedagogies about multiple forms of oppression applied to the design, assessment and implementation of programs and practices
- addressing individual and systemic biases, discrimination and barriers as well as manifestations of power and privilege.

The Ethical Standards for the Teaching Profession and The Standards of Practice for the Teaching Profession

- significance of the Ethical Standards for the Teaching Profession and the Standards of Practice for the Teaching Profession as theoretical foundations within *Senior Division, Environmental Science*
- ethical professional identity, knowledge and leadership, and collective practices as described in the *Foundations of Professional Practice* to inform program planning.

First Nations, Métis, and Inuit histories, perspectives and knowledge systems

- meaningful inclusion of First Nations, Métis, and Inuit histories, perspectives and knowledge systems in teaching and learning processes
- knowledge of the *Truth and Reconciliation Commission of Canada: Calls to Action (TRC)*
- awareness of the *United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)*.

Current Ontario curriculum and related Ministry of Education policies, frameworks, guidelines, strategies and resources:

- Ontario curriculum, policies, frameworks, strategies and resources related to *Senior Division, Environmental Science*
- policies, processes and practices that foster openness to innovation, culturally inclusive pedagogies and the democratization of knowledge
- understanding safety and risk-management related resources, guidelines and standards (for example, outdoor education)
- environmental sustainability and systems thinking as well as connections and reciprocity with nature.

Current Ontario legislation and regulation:

- relevant legislation (for example, Ontario Human Rights Code, Anti-Racism Act, 2017, S.O. 2017, c. 15 and Freedom of Information and Protection of Privacy Act) and policies at the municipal, provincial, federal and international levels that support human rights and privacy for all
- candidates' legal obligations and ethical responsibilities according to current provincial legislation, policies and practices.

Accessibility for All

- ethical responsibilities related to *Accessibility for Ontarians with Disabilities Act S.O., 2005*
- assistive supports and technologies to facilitate learning and foster inclusion.

Learning for All - Special Education

- strategies (for example, universal learning design, experiential learning, differentiated instruction and inquiry) and services that respond to the interests and needs of each learner
- inclusive processes to support development and implementation of Individual Education Plans (IEP) including the transition plan for learners that include voices and perspectives of those involved
- interdisciplinary teams to support learning, advocacy and transitions.

Application of educational research

- current research and literature associated with professional practices, policies and pedagogies related to *Senior Division, Environmental Science*
- research that reflects society's diverse changing nature and influence on learning and well-being
- theoretical foundation for the design, assessment and implementation of programs and practices in support of learning.

Application of theories of learning and teaching

- theories and practices related to pedagogy and andragogy that support learning within an inclusive environment
- theoretical frameworks and fundamental principles underpinning *Senior Division, Environmental Science*
- theories of development and identity formation that support learner well-being, efficacy and agency
- learning theories to develop learner's profiles and identities.

Learner-centred pedagogy

- processes and practices to understand learner's curiosities and experiences to empower them to reach their learning goals
- programs and processes that link curriculum to each learner's abilities, interests, strengths, inquiries and needs
- strategies that respect the development, identities, choices and well-being of each learner
- environmental science-based learning experience that empower learners to take ecological and sustainable actions.

Supports for learners

- policies, processes, practices to support learners cognitive, social, emotional and physical development
- programs that respond to learners' lived experiences, identities, needs and well-being
- critical pedagogies and practices that support learners' well-being and efficacy.

Teaching, assessing and evaluating

- program design and implementation that align with the principles and processes of Ontario curriculum and related policies (for example, indoor and outdoor, natural and built environment experiences)
- culturally inclusive processes and practices to provide learning opportunities that respect the learning styles, voice and perspectives of each learner
- assessment and evaluation processes and practices to:
 - provide feedback to learners and adjust instruction (assessment *for* learning)
 - develop learners' capacity to be independent, autonomous learners (assessment *as* learning)
 - make informed professional judgments about the quality of learning (assessment *of* learning)
- instructional strategies to emphasize the importance of inquiry-based learning and transferable skills
- strategies to learn through scientific investigation
- cross-curricular experiences that explore historical, cultural, social, ecological and political systems to deepen the understanding of the interactions between human and natural systems).

Pathway and transition planning

- processes and practices to support all transitions
- curriculum design using learners' career and life goals
- programs and learning opportunities for all pathways
- practices that develop the transferable skills to support lifelong learning.

Safe, equitable and inclusive learning environments

- policies and processes to create and maintain inclusive learning environments that respect diversity and encourage critical thinking
- inclusive learning environments that facilitate learning, foster learner agency and perspectives
- practices that support safe and healthy learning environments for learners as well as families, caregivers, guardians, Elders, Knowledge Keepers and Knowledge Guardians.

Teaching and learning through e-Learning principles

- Integration of information and communication technology to enhance teaching and learning
- technological and communication resources to enhance professional knowledge in support of learning and agency
- ethical use of technology in support of learners' safety, privacy and well-being.

Culturally responsive and relevant pedagogical practices

- culturally responsive and relevant practices that reflect understanding of learners' diverse identities
- culturally inclusive resources that support learning to foster engagement and well-being
- awareness of cultural appropriation and cultural appreciation.

Social justice and democratic citizenship

- policies related to democratic citizenship within local, national and global contexts
- processes and practices that foster learners' voice and choice, respect diversity and promote social justice
- strategies for consensus-building, participatory democracy and empowerment within schools and the community.

Environmental sustainability

- shared responsibility, leadership and partnership to foster ecological justice as conveyed in the *Foundations of Professional Practice*
- integration of environmentally sustainable policies, pedagogies and practices
- processes that engage learners as active global citizens in supporting environmental and economic sustainability
- ways of knowing, acting and being in social and ecological community
- impact of environmental issues and promotion of a sense of responsibility, emotional investment and a commitment to action.

Shared responsibility for learning

- processes and practices to foster communication and collaboration with learners, families, caregivers, guardians, Elders, Knowledge Keepers and Knowledge Guardians, agencies and the school community to support learning
- partnerships with families, caregivers, guardians, Elders, Knowledge Keepers and Knowledge Guardians that value shared decision-making, confidentiality, advocacy and leadership.

Communities of professional learning

- professional learning communities that promote critical pedagogy and collective efficacy
- research and leadership to advance professional practice through ongoing collaborative inquiry, dialogue and innovation
- processes, practices and strategies to foster collaboration with in-school personnel to support learning, well-being and leadership.

Resources

Resources to support the development of the AQ Course *Senior Division, Environmental Science* can be found on the [College](#) website and the [Ontario Ministry of Education](#) website.



Ontario
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Ontario's Teaching Regulator

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