Ontario College of Teachers

Ordre des enseignantes et des enseignants de l'Ontario

Additional Qualification Course Guideline Integration of Information and Computer Technology in Instruction, Part I

(Previous Name: Computers in the Classroom)

Schedule D
Teachers' Qualifications Regulation

July 2013

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Additional Qualification Course Guideline Integration of Information and Computer Technology in Instruction, PART I

1. Introduction

Three-session specialist Additional Qualification courses identified in Schedule D (*Teachers' Qualifications Regulation*) are intended to:

- enhance professional practice, and extend knowledge and skills in Integration of Information and Computer Technology in Instruction (Part I)
- enhance professional practice, and extend and apply knowledge and skills in the design and Integration of Information and Computer Technology in Instruction (Part II)
- enhance professional practice, and extend and apply knowledge and skills in the curriculum leadership related to the Integration of Information and Computer Technology in Instruction (Specialist).

The Additional Qualification Course: Integration of Information and Computer Technology in Instruction, Part I employs a critical lens to explore in a holistic and integrated manner theoretical foundations, the development of learners, program planning and implementation, instructional practices, assessment, the learning environment and ethical considerations related to teaching and learning across the divisions.

Critical to the implementation of this course is the modeling of a positive learning environment that reflects care, diversity and equity. This course supports the enhancement of professional knowledge, ethical practice, leadership and ongoing learning.

The Ontario College of Teachers recognizes that candidates working in the publicly funded school system, independent/private institutions or First Nations schools will have a need to explore in an integrated delivery model, topics and issues of particular relevance to the context in which they work or may work.

The French language and the English language communities will also need to implement these guidelines to reflect the unique contextual dimensions and needs of each community. Each of these language communities will explore the guideline content from distinct perspectives and emphasis. This flexibility will

enable both language communities to implement Integration of Information and Computer Technology in Instruction as understood from a variety of contexts.

The Integration of Information and Computer Technology in Instruction Part I additional qualification course guideline provides a conceptual framework for the course. Course providers and instructors use the guideline to develop and facilitate the Integration of Information and Computer Technology in Instruction Part I course. The guideline framework is intended to be a fluid representation of key concepts and direction associated with Integration of Information and Computer Technology in Instruction.

2. Regulatory Context

The College is the self-regulating body for the teaching profession in Ontario. The College's responsibility related to courses leading to Additional Qualification includes the following:

- to establish and enforce professional standards and ethical standards applicable to members of the College,
- to provide for the ongoing education of members of the College,
- to accredit Additional Qualification courses and more specifically,

> *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. (Reg. 347/02, Accreditation of Teacher Education Programs, Part IV, Subsection 24).

Additional qualifications for teachers are identified in the *Teachers' Qualifications Regulation*. This regulation includes courses that lead to Additional Qualifications, the Principal's Qualifications and the Supervisory Officer's Qualifications. A session of a course leading to an Additional Qualification shall consist of a minimum of 125 hours of work that is approved by the Registrar. Accredited Additional Qualification courses reflect the *Ethical Standards for the Teaching Profession,* the *Standards of Practice for the Teaching Profession* and the *Professional Learning Framework for the Teaching Profession.*

Successful completion of the course leading to the Additional Qualification: Integration of Information and Computer Technology in Instruction, Part I listed in Schedule D of the *Teachers' Qualifications Regulation*, is recorded on the teacher's Certificate of Qualification and Registration.

In this document, all references to "candidates" are to teachers enrolled in the Additional Qualification course. References to "students" indicate those enrolled in school programs.

3. Foundations of Professional Practice

The *Foundations of Professional Practice* conveys a clear vision of what it means to be a teacher which is at the core of teacher professionalism. The *Ethical Standards for the Teaching Profession* and the *Standards of Practice for the Teaching Profession* (Appendix 1) provide the focus for ongoing professional learning and are the foundation for the development of the Additional Qualification Course: Integration of Information and Computer Technology in Instruction Part I. In addition, the *Professional Learning Framework for the Teaching Profession* is underpinned by the standards, articulates the principles on which effective teacher learning is based and acknowledges a range of options that promote continuous professional learning. The ongoing enhancement of informed professional judgment, which is acquired through the processes of lived experience, inquiry, and reflection, is central to the embodiment of the standards and the Professional Learning Framework within this AQ course and professional practice.

Teacher-Education Resources

The College has developed resources to support the effective integration of the standards within Additional Qualification courses. These teacher education resources explore the integration of the standards within professional practice through a variety of educative and inquiry-based processes. This guideline has been designed to reflect the *Ethical Standards for the Teaching Profession* and the *Standards of Practice for the Teaching Profession.* A list of these resources can be found in Appendix 2 and are available through the College web site (www.oct.ca). These resources support the development of professional knowledge and professional judgment through reflective practice. The lived experiences of Ontario educators are illuminated in the resources and serve as AQ course support for teacher education.

4. Course Components

The design, course content and implementation of the Additional Qualification Course Guideline: Integration of Information and Computer Technology in Instruction Part I support effective teacher education practices. These course guideline components provide a conceptual map for the development of a holistic and integrated course. The following course components of this guideline support and inform effective professional knowledge, judgment and practice within the Additional Qualification Course: Integration of Information and Computer Technology in Instruction Part I.

A) The *Ethical Standards for the Teaching Profession* and the *Standards of Practice for the Teaching Profession*:

The *Ethical Standards for the Teaching Profession* and the *Standards of Practice for the Teaching Profession* represent a collective vision of professional practice. At the heart of a strong and effective teaching profession is a commitment to students and their learning. Members of the Ontario College of Teachers, in their position of trust, demonstrate responsibility in their relationships with students, parents, guardians, colleagues, educational partners, other professionals, the environment and the public.

The holistic integration of the standards within all course components supports the embodiment of the collective vision of the teaching profession that guides professional knowledge, learning, and practice. The following principles and concepts support this holistic integration within the AQ course.

- understanding and embodying care, trust, respect and integrity
- fostering commitment to students and student learning
- integrating professional knowledge
- enriching and developing professional practice
- supporting leadership in learning communities
- engaging in ongoing professional learning.

Through professional dialogue and collaborative reflection, course candidates will continue to inquire into and refine professional practice through the lens of the standards.

B) Overall Expectations

The *Ethical Standards for the Teaching Profession* and the *Standards of Practice for the Teaching Profession* are embedded within the overall expectations of this guideline.

This Additional Qualification course has the following overall learning expectations for candidates:

- understanding and interpreting Ontario's curriculum, policies, frameworks, strategies and guidelines
- developing awareness of First Nations, Métis and Inuit ways of knowing and perspectives
- applying the theoretical understanding to implement and assess programs and/or practices related to Integration of Information and Computer Technology in Instruction
- exploring and integrating strategies and assessment practices linked to expectations in response to the individual needs of students, and the promotion of student success
- enhancing awareness of holistic learning environments (intellectual, social, emotional, physical, environmental, linguistic, cultural, spiritual and moral)
- exploring strategies for collaboration with in-school personnel, parents/guardians and the community
- exploring a variety of appropriate resources, including technological and communication resources, to enhance professional knowledge in support of student learning
- exploring professional practice through ongoing collaborative inquiry, dialogue and reflection
- understanding and implementing a culture of ethical practices related to the use of information and computer technology
- understanding the legal considerations related to working with digital resources
- understanding the role of professional learning communities in enhancing professional knowledge and supporting student learning
- integrating environmentally respectful perspectives and practices

- creating and sustaining safe, healthy, equitable and inclusive learning environments that honour and respect diversity
- understanding the impact of emerging technologies on learning
- recognizing varying comfort levels in the use of technologies to support instruction
- examining how digital technologies can support, extend and enrich student learning
- exploring and generating instructional strategies to integrate information and computer technology tools through reflection, active engagement and collaboration
- developing creative approaches for the integration of information and computer technology in instruction
- understanding the importance of critically examining qualitative and quantitative research related to professional practice.

C) Ontario Curriculum, Policies and Resources

The Additional Qualification Course: Integration of Information and Computer Technology in Instruction Part I is aligned with current Ontario curriculum, relevant legislation, government policies, and resources. These documents inform the development and implementation of the Additional Qualification Course: Integration of Information and Computer Technology in Instruction Part I and can be viewed at www.edu.gov.on.ca.

Course candidates are also encouraged to critically explore the policies, practices and resources available at school and board levels that may also inform Integration of Information and Computer Technology in Instruction teaching and learning.

D) Theoretical Foundations of Integration of Information and Computer Technology in Instruction Part I

- understanding theories of child and adolescent development
- exploring a variety of conceptual frameworks for the integration of information and computer technology in instruction

- understanding Ontario curriculum and government policies relevant to Integration of Information and Computer Technology in Instruction
- reflecting on teaching practice and engaging in professional dialogue on the relationship of theory and practice in the Integration of Information and Computer Technology in Instruction
- exploring the *Ethical Standards for the Teaching Profession* and the *Standards of Practice for the Teaching Profession* as the foundation for teacher professionalism within the Additional Qualification Course: Integration of Information and Computer Technology in Instruction Part I.
- exploring the significance of Ontario Human Rights Code, Ontarians with Disabilities Act, and the Accessibility for Ontarians with Disabilities Act (AODA) and associated responsibilities within professional practice.

E) Program Planning, Development and Implementation

- exploring the creation of positive, equitable, accepting and safe learning communities
- deepening understanding of how the *Ethical Standards for the Teaching Profession* and the *Standards of Practice for the Teaching Profession* can inform a program planning framework
- identifying factors in a diverse and changing society that have an impact on students
- connecting to students' authentic information and computer technology interests and experiences
- understanding how rapid changes in information and computer technology impact on program planning and development
- deepening understanding of program planning, development, and implementation strategies and frameworks for the integration of information and computer technology in instruction
- deepening understanding of differentiated instruction and universal design in the planning, development and implementation of learning experiences related to the integration of information and computer technology in instruction
- identifying and accessing community, collegial, print and electronic resources related to the integration of information and computer technology in instruction

- exploring the use of information and computer technologies to support ministry expectations across the curriculum
- using key software applications such as graphic, video, audio, database, word processing and spreadsheets
- using key online applications (for example, social media, email, search engines, directories, collaborative tools)
- exploring the concept of e-learning services and resources and the Ontario's e-Learning Strategy (for example, Ontario Educational Resource Bank)
- exploring models of hardware distribution and their impact on the integration of information and computer technology in instruction
- developing an awareness of supportive and assistive technologies and their benefits
- exploring sources of software and hardware to support the integration of information and computer technology across curriculum
- integrating culturally responsive pedagogy within program planning and development
- developing an understanding of the mental health needs of students and the implications for teaching and learning.

F) Instructional Strategies and the Learning Environment

- exploring information communication technology strategies for fostering a collaborative community of learners
- exploring relevant information and computer technology to support student learning
- understanding a variety of instructional strategies to integrate information and computer technology in instruction
- understanding and implementing a variety of strategies for adapting, modifying and accommodating instruction to meet the needs of all learners
- implementing strategies for the creation of inclusive learning environments that reflect the ethical standards and standards of practice and affirms the need to respect and conserve resources in the environment

- using pedagogies that reflect the professional identity of educators as described in the ethical standards, the standards of practice and in the *Foundations of Professional Practice*
- explore the need for alternative expectations, courses and programs to meet the needs of all learners.

G) Assessment and Evaluation

- understanding and implementing fair, equitable, transparent, valid and reliable assessment and evaluation methods that honour the dignity, emotional wellness and cognitive development of all students
- understanding assessment, evaluation and reporting processes that are consistent with the principles and practices and expectations reflected in Ontario's policy documents
- exploring assessment for the following three purposes: to provide feedback to students and to adjust instruction (assessment *for* learning); to develop students' capacity to be independent, autonomous learners (assessment *as* learning); to make judgments about the quality of student learning (assessment *of* learning)
- exploring multiple assessment methods that are ongoing, varied in nature and implemented over a period of time to support student learning
- exploring multiple assessment methods to support student learning: diagnostic, formative, and summative
- exploring information and computer technology tools to support assessment and evaluation.

H) Shared Support for Learning

- understanding the importance of continuous, meaningful, detailed and supportive communication with parents/guardians and the community
- understanding the importance of professional collaboration that supports student learning
- understanding and respecting the importance of shared responsibility and partnership as conveyed in the *Foundations of Professional Practice.*

- exploring professional learning opportunities for integrating information and computer technology in instruction
- fostering and sustaining a positive, welcoming school climate in which all parent perspectives are encouraged, valued and heard.

I) Legal and Ethical Issues

- understanding ethical issues and responsibilities related to the integration of information and computer technologies in instruction
- demonstrating an awareness of relevant school, board and provincial guidelines, procedures, policies and regulations for the use of internet information and computer technology
- demonstrating an awareness of the safe and equitable use of electronic resources with peers, students and parents/guardians
- demonstrates an awareness of Intellectual Property rights in the use of information and computer technology in instruction.

J) Research and Development

- exploring past, present and evolving practices in Integration of Information and Computer Technology in Instruction
- exploring professional practice through ongoing inquiry into theory and pedagogy/andragogy
- engaging in professional learning through research, scholarship and leadership
- integrating research and the scholarship of pedagogy/andragogy into teaching practice
- collaborating in research and the scholarship of pedagogy/andragogy
- exploring knowledge-creation and mobilization as professional practice.

5. Instructional Practice in the Additional Qualification Course Integration of Information and Computer Technology in Instruction PART I

In the implementation of this Additional Qualification course, instructors use strategies that are relevant, meaningful and practical in providing candidates with learning experiences about program, instruction, pedagogy and assessment and evaluation. These include but are not limited to, small group interaction, action research, presentations, independent inquiry, problem solving, collaborative learning and direct instruction.

Instructors model the standards, honour the principles of adult learning, recognize candidates' experience and prior learning and respond to individual needs. Important to the course are opportunities for candidates to create support networks and receive feedback from colleagues and instructors and share the products of their learning with others. Opportunities for professional reading, reflection, dialogue and expression are also integral parts of the course.

Instructors model effective instructional strategies and formative and summative assessment that can be replicated or adapted in the candidate's classroom.

A. Experiential Learning

Candidates will be provided with opportunities to engage in experiential learning related to key concepts and aspects of Integration of Information and Computer Technology as collaboratively determined by both the instructor and course candidates. The intent of the experiential learning opportunities is to support the application and integration of practice and theory within the authentic context of teaching and learning. Candidates will also engage in critical reflection and analysis of their engagement in experiential learning opportunities related to Integration of Information and Computer Technology. The professional judgment, knowledge and pedagogy of candidates will be enhanced and refined through experiential learning and, inquiry.

The College's standards resources (Appendix 2) can be integrated into AQ courses to help support experiential learning through professional inquiry.

6. Assessment and Evaluation of Candidates

At the beginning of the course, candidates are provided with the specific learning expectations and forms of assessment and evaluation that will be used throughout the course. Instructors will provide opportunities for regular feedback regarding candidates' progress throughout the course.

A balanced approach to candidate assessment and evaluation is used. It includes the combination of self and peer assessment and instructor evaluation, and models effective practices. A variety of assessment approaches will be used that enable candidates to convey their learning related to course expectations. The course provides opportunities for both formative and summative assessment and evaluation.

Central to candidates enrolled in Additional Qualification courses is the opportunity to be engaged in relevant and meaningful work. Assignments, artefacts and projects enable candidates to make connections between theory and practice. At the same time, assignments must allow candidates flexibility, choice, and individual inquiry opportunities.

Part of the evaluation process may include a major independent project or action research component over the duration of the course. This project is an opportunity for candidates to illustrate a high level of professional knowledge, communication skills, pedagogy, ethical practices and instructional leadership. Similarly, if a portfolio assignment is used, it will also include reflections and analysis of a candidate's learning over time.

A final culminating experience in the course is recommended. This experience may take the form of a written assessment, a research paper, a performance, an inquiry project or a product that is genuinely new, meaningful and practical.

The following list of assessment strategies which are reflective of experiential learning is not exhaustive; it is intended to serve as a guide only.

a) Performance assessment: designing a sample unit which includes a culminating activity and appropriate assessment and evaluation tools, incorporates a variety of technologies and resources relevant to the study of integrating of Information and Computer Technology in Instruction and is based on Ministry of Education curriculum expectations

b) Written assignment: reflecting critically on issues arising from articles, publications, research and/or other resources related to the integration of Information and Computer Technology in Instruction

c) Presentation: developing a digital story, presenting an issue related to the integration of Information and Computer Technology in Instruction

d) Portfolio: creating a portfolio of practical resources, artefacts, photographs and recording critical reflections one or several components related to Integration of Information and Computer Technology in Instruction

e) Action research: engaging in action research by reflecting and acting upon a specific inquiry into teaching practice related to integration of Information and Computer Technology in Instruction

f) Independent project: addressing any aspect of the course that is approved by the instructor

g) Instructional resource: developing a meaningful resource that will support instruction and pedagogy related to the Integration of Information and Computer Technology in Instruction

h) Reflective writing: reflecting on professional practice through journal writing, or writing a case or vignette that will support instruction and pedagogy related to the integration of Information and Computer Technology in Instruction

i) Case inquiry: writing or exploring a case related to collaboration and shared partnerships, with parents, colleagues, and community organizations

j) IEP development: collaboratively develop an IEP related to Integration of Information and Computer Technology with the family, student and school team

k) Facilitating a Learning Experience: developing and implementing an engaging learning experience that reflects differentiated instruction and universal design.

Appendix 1

The *Ethical Standards for the Teaching Profession*

The *Ethical Standards for the Teaching Profession* represent a vision of professional practice. At the heart of a strong and effective teaching profession is a commitment to students and their learning. Members of the Ontario College of Teachers, in their position of trust, demonstrate responsibility in their relationships with students, parents, guardians, colleagues, educational partners, other professionals, the environment and the public.

The Purposes of the Ethical Standards for the Teaching Profession are:

- to inspire members to reflect and uphold the honour and dignity of the teaching profession
- to identify the ethical responsibilities and commitments in the teaching profession
- to guide ethical decisions and actions in the teaching profession
- to promote public trust and confidence in the teaching profession.

The Ethical Standards for the Teaching Profession are:

Care
The ethical standard of *Care* includes compassion, acceptance, interest and insight for developing students' potential. Members express their commitment to students' well-being and learning through positive influence, professional judgment and empathy in practice.

Respect
Intrinsic to the ethical standard of *Respect* are trust and fair-mindedness. Members honour human dignity, emotional wellness and cognitive development. In their professional practice, they model respect for spiritual and cultural values, social justice, confidentiality, freedom, democracy and the environment.

Trust
The ethical standard of *Trust* embodies fairness, openness and honesty. Members' professional relationships with students, colleagues, parents, guardians and the public are based on trust.

Integrity
Honesty, reliability and moral action are embodied in the ethical standard of *Integrity*. Continual reflection assists members in exercising integrity in their professional commitments and responsibilities.

The *Standards of Practice for the Teaching Profession*

The *Standards of Practice for the Teaching Profession* provide a framework of principles that describes the knowledge, skills, and values inherent in Ontario's teaching profession. These standards articulate the goals and aspirations of the profession. These standards convey a collective vision of professionalism that guides the daily practices of members of the Ontario College of Teachers.

The Purposes of the Standards of Practice for the Teaching Profession are:

- to inspire a shared vision for the teaching profession
- to identify the values, knowledge and skills that are distinctive to the teaching profession
- to guide the professional judgment and actions of the teaching profession
- to promote a common language that fosters an understanding of what it means to be a member of the teaching profession.

The Standards of Practice for the Teaching Profession are:

Commitment to Students and Student Learning
Members are dedicated in their care and commitment to students. They treat students equitably and with respect and are sensitive to factors that influence individual student learning. Members facilitate the development of students as contributing citizens of Canadian society.

Professional Knowledge
Members strive to be current in their professional knowledge and recognize its relationship to practice. They understand and reflect on student development, learning theory, pedagogy, curriculum, ethics, educational research and related policies and legislation to inform professional judgment in practice.

Professional Practice
Members apply professional knowledge and experience to promote student learning. They use appropriate pedagogy, assessment and evaluation, resources and technology in planning for and responding to the needs of individual students and learning communities. Members refine their professional practice through ongoing inquiry, dialogue and reflection.

Leadership in Learning Communities
Members promote and participate in the creation of collaborative, safe and supportive learning communities. They recognize their shared responsibilities and their leadership roles in order to facilitate student success. Members maintain and uphold the principles of the ethical standards in these learning communities.

Ongoing Professional Learning
Members recognize that a commitment to ongoing professional learning is integral to effective practice and to student learning. Professional practice and self-directed learning are informed by experience, research, collaboration and knowledge.

Appendix 2

Standards-Based Professional Resources

Information pertaining to the following standards resources which support learning through professional inquiry is available through the College web site at www.oct.ca.

Allard, C.C., Goldblatt, P.F., Kemball, J.I., Kendrick, S.A., Millen, K.J., & Smith, D.M. (2007). Becoming a reflective community of practice. *Reflective Practice (8*)3, 299-314.

Cherubini, L., Smith, D., Goldblatt, P., Engemann, J., & Kitchen, J. (2008). *Learning from Experience: Supporting beginning and mentor teachers.* Toronto, ON: Ontario College of Teachers.

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Goldblatt, P.F., & Smith, D. (2004). Illuminating and facilitating professional knowledge through casework. *European Journal of Teacher Education (27*)3, 334-354.

Goldblatt, P.F., & Smith, D. (2005). (Eds.). *Cases for teacher development: Preparing for the classroom*. Thousand Oaks, CA: Sage Publications.

Ontario College of Teachers. (2003). *Standards in practice: Fostering professional inquiry*. [Resource kit 1]. Toronto, ON: Author.

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Ontario College of Teachers. (2008). *Living the standards.* [Resource kit 2]. Toronto, ON: Author.

Ontario College of Teachers. (2010). *A self-reflective professional learning tool.* Toronto, ON: Author.

Ontario College of Teachers. (2010). *Voices of wisdom* [DVD]. Toronto, ON: Author.

Smith, D., & Goldblatt, P.F. (Eds.). (2006). *Casebook guide for teacher education*. Toronto, ON: Ontario College of Teachers.

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Smith, D. (2010). Developing leaders using case inquiry. *Scholar-Practitioner Quarterly, 4*(2), 105-123.

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