Industry Trade Certification Program
The design, construction, installation and service of a swimming pool or spa require a highly diversified skill set. Members of the Pool & Hot Tub Council of Canada recognize the importance of continual training to maintaining high quality workmanship and maintenance techniques. The PHTCC Industry Trade Certification Program offers a comprehensive two-tiered educational platform for those employed in the aquatic recreation industry.

Become qualified as an Aquatic Recreation Industry SPECIALIST (Level One - Fundamentals)
HOW? By the successful completion of 4 core courses and 3 elective courses.

Achieve the designation of Aquatic Recreation Industry EXPERT (Level Two – Advanced)
HOW? By the successful completion of the SPECIALIST level, plus an additional 4 core courses and a total of 6 elective courses (i.e., 3 additional beyond Specialist level).

Certain courses offered by sister organization are also recognized as electives. Please contact the PHTCC national office for details.

TIME LIMIT: Complete the SPECIALIST program in a maximum of five years. Complete the EXPERT level in a maximum of five years. [Notable exception for companies servicing the City of Toronto: The Water Discharge Management course must be successfully renewed every three years in order to retain accreditation.]

To qualify for certification, a student must be employed by a company that carries general liability insurance and also must be covered under their provincial workers’ compensation program.

Those who previously were successful in completing either the PHTCC ASPECT or Apprenticeship courses will be granted four (4) elective credits toward this program. All core courses must be completed to qualify under the new certification program.

Unless otherwise specified, courses listed as part of the Industry Trade Certification Program are provided by the Pool & Hot Tub Council of Canada either in a class environment or via computer-based training from the website: www.poolcouncil.ca.

Re-certification required every 5 Years. (1 Core Course and 3 Elective courses.)
To achieve Certification as a SPECIALIST (LEVEL 1 - FUNDAMENTALS) the student must successfully complete the following core courses:

- Pool Installation 101
- Water Chemistry 101
- Pool Operation
- Safety in our Backyards

plus three (3) courses from the following list of electives:

- Hot Tub/Spa Service and Maintenance
- Pool/Spa Handover - Orientation for the New Owner
- Water Discharge Best Management Practices
- Hot Water Chemistry
- Automation – Basic Operation and Programming
- Spa Pack & Pump Troubleshooting
- Tips, Techniques & Tricks of the Trade
- Marketing and Merchandising for the Modern Pool and Spa Retailer
- Certified Pool Operator® Course- a National Swimming Pool Foundation offering endorsed by the PHTCC
- Transportation of Dangerous Goods (TDG) from a provincially authorized provider

A PHTCC Chapter course approved by the PHTCC Education Committee

An authorized course offered within the certification programs of the Association of Pool & Spa Professionals (APSP)

An authorized course offered within the training programs of the Foundation for Pool & Spa Industry Education (FPSIE)

Note: The equivalent of 1 elective course may be met by correctly answering the skill testing questions that accompany four (4) of the Continuing Education articles that appear in Pool & Spa Marketing magazine.
Specialist Level
Core Courses

**Pool Installation 101**
The basics of inground swimming pool construction

**Topics:** Circulation Systems, Types of Swimming Pools, Filters, Heaters, Sanitization Systems, Introduction to Plumbing, Features and Options, Electrical & Gas Connections, Covers, Contracts, Dealing with Clients.

**Water Chemistry 101**
The basics of swimming pool water balance and water care

**Topics:** Water Maintenance (Physical, Chemical, Biological), Sanitizing, Oxidizing, Control of pH, Total Alkalinity, Calcium Hardness, Other Water Balance Parameters, Langelier Index, Saltwater Pools, Algae Control.

**Pool Operation**
The basics on how to responsibly service and maintain spas and swimming pools

**Topics:** Customer Relations, Safety, Circulation System, Filter Types, Heater Types, Sanitizer systems, Chemical Parameters, Lighting, Cleaners (manual and automatic), Automation, Covers (summer, winter, safety), Leak Detection, PVC Cementing.
Safety in the Backyard

The basics on water safety and drowning prevention (Developed jointly by the Canadian Red Cross and the Pool & Hot Tub Council of Canada)

To achieve Certification as an **EXPERT** (LEVEL 2 - ADVANCED) the student must successfully complete the following core courses in addition to having already completed the core course requirements of SPECIALIST (Level One) Certification:

- Pool Installation 201
- Water Chemistry 201
- Hydraulics
- Business Concepts

plus a total of six (6) courses from the following list of electives:

- Pool Inspection (Prerequisite: attainment of Level 1 Specialist Certification)
- Hot Tub/Spa Service and Maintenance
- Pool/Spa Handover - Orientation for the New Owner
- Water Discharge Best Management Practices
- Hot Water Chemistry
- Automation – Basic Operation and Programming
- Spa Pack & Pump Troubleshooting
- Tips, Techniques & Tricks of the Trade
- Marketing and Merchandising for the Modern Pool and Spa Retailer
- Certified Pool Operator® Course- a National Swimming Pool Foundation offering endorsed by the PHTCC
- Transportation of Dangerous Goods (TDG) from a provincially authorized provider
- A PHTCC Chapter course approved by the PHTCC Education Committee
- An authorized course offered within the certification programs of the Association of Pool & Spa Professionals (APSP)
- An authorized course offered within the training programs of the Foundation for Pool & Spa Industry Education (FPSIE)

Note: The equivalent of 1 elective course may be met by correctly answering the skill testing questions that accompany four (4) of the Continuing Education articles that appear in Pool & Spa Marketing magazine.
Expert Level
Core Courses

Pool Installation 201

Advanced concepts in inground swimming pool construction
(Building upon knowledge derived from Pool Installation 101)


Water Chemistry 201

Advanced concepts in solving water quality issues
(Building upon knowledge derived from Water Chemistry 101)


Hydraulics

The fundamentals of fluid dynamics and water circulation

Topics: Surface Area Calculation, Water Circulation, Pump Right-sizing, Multi-speed Pumps, Variable Speed Pumps, Optimizing the Turnover Rate, Piping Diameters, Pressure Sources, Dual Main Drains/Safety, Flow Resistance, Friction Loss, Total Dynamic Head.
Business Concepts

The fundamentals of operating a company from the perspective of supervisor or manager.

Elective Courses

Hot Tub/Spa Service and Maintenance

How to install, service and maintain hot tubs/spas

**Topics:** Site Selection and Preparation, Types, Delivery, Installation, Enclosures, Water Balance, Filtration and Circulation, Component Identification and Repair, Packs, Troubleshooting

Pool/Spa Handover

Orientation for the New Owner

**Topics:** System Explanation, Maintenance Manuals, Component Descriptions, Backyard Safety, Hands-on Learning, Service Relationship, Sign Ups & Sign Offs, Pool Warming Gift, Follow-up, Common Questions.

Best Management Practices for Water Discharge

Best Management Practices

**Topics:** Regulations, Environmental Impacts, Pollutants, Water Quality Criteria, Water Treatment Alternatives, Conservation Tips (Energy and Water Consumption), Responsibilities, Monitoring, Inspection, Enforcement.

Hot Water Chemistry

Testing, maintaining and controlling water temperature of spas/hot tubs/whirlpools.

**Topics:** Testing, Temperatures, Effects of Additives.
Elective Courses

Automation

Basic Operation and Programming

**Topics:** Equipment Location, Schedules, Smart Connections, Remote Connectivity, Installation, Components, Settings, Multiple Feature Control, Operation/Programming, Actuators, Operating Modes, Diagnostics.

Spa Pak & Pump Troubleshooting

Review preparation for service calls & basic troubleshooting for spa packs & pumps


Residential Pool Inspection

*(Prerequisite: attainment of Level 1 Specialist Certification)*

How to effectively conduct an inspection of a residential pool and report findings

**Topics:** Preparation, Pool Finish, Size and Shape, Pool Surround, Circulation and Filtration System, Deck Equipment, Pool Accessories, Assessment, Review, Report, Disclaimers, Sales Opportunities

Tips, Techniques & Tricks of the Trade

Improving efficiency, problem solving skills, time saving short-cuts

**Topics:** Cost Effective Solutions addressing lighting, leaks, pump programming, testing, liner installation, measurements.
Elective Courses

**Marketing and Merchandising for the Modern Pool and Spa Retailer**

Marketing and merchandising techniques to retail professionals.

**Topics:** Retail Environment (Lighting, Acoustics, Signage), Product Positioning, Advertising, Online Presence, Combatting Mass-Merchandisers & Online Retailers, Handling Customer Reviews.
Certified Pool Operator (CPO®)
(Developed by the National Swimming Pool Foundation and taught by an NSPF® certified instructor)

Providing the knowledge, techniques and skills required to operate public pools and spas

**Topics:** Water Balance, Pool Water Contamination, Disinfection, Filtration, Water Circulation, Codes and Regulations, Pool Care and Management, Risk Reduction, Drowning Prevention, Recreational Water Illness, Suction Entrapment, Chemical Hazards, Control Technology, Chemical Feed

Transportation of Dangerous Goods (TDG)
(as authorized by Transport Canada)

Training on the handling, offering, and transporting of dangerous goods

**Topics:** Regulations, Emergency Response Assistance Plans, Containment, Reporting Requirements, Documentation, Emergency Measures, Safety Marks, Use of Equipment, Safe Practices

PHTCC Chapter course

To qualify for the PHTCC Certification program, courses taken at chapters events must be approved by the PHTCC Education Committee.
Elective Courses

Association of Pool & Spa Professionals Course

An authorized course offered within the certification programs of the Association of Pool & Spa Professionals (APSP).

Foundation for Pool & Spa Industry Education Course

An authorized course offered within the training programs of the Foundation for Pool & Spa Industry Education (FPSIE).

Continuing Education articles - Pool & Spa Marketing magazine

The equivalent of 1 elective course may be met by correctly answering the skill testing questions that accompany four (4) of the Continuing Education articles.