

B.C. Employer Training Grant (ETG) Application Kit

Red Seal Plumbing Exam Preparation & Advanced Code Mastery (32 Instructional Hours)

PART 1: WORKBC PORTAL SUBMISSION GUIDE

Copy and paste these exact inputs directly into the WorkBC Skills Training Grants System (Workforce Training Stream).

WorkBC Portal Field	Exact Application Input / Narrative
Target Grant Stream	Workforce Training Stream (Priority Sector: Construction / Skilled Trades)
Training Provider	
Course / Program Title	Red Seal Plumbing Exam Preparation & Advanced Code Mastery
Instructional Delivery	Hybrid Delivery: 24h Asynchronous On-Demand Video & Test Engine + 8h Live Problem Clinics
Total Program Duration	32 Total Instructional Hours (Conducted over 4 Consecutive Weeks)
Credential Objective	Interprovincial Red Seal Endorsement (RSE) Pathway / Red Seal IP Exam Preparation
Business Need / Employer Rationale	"Our plumbing contracting firm requires senior apprentices (Levels 3–4) and eligible trade qualifiers to achieve their Red Seal certification. Certified journeypersons are required to satisfy safety ratios, supervise junior apprentices, and unlock higher billing charge-out rates on commercial and residential mechanical projects."
Expected Training Outcome	"Participants will acquire advanced code navigation, complex hydraulic/pneumatic venting calculation, and isometric layout skills required to pass the Red Seal IP examination, directly advancing from apprentice wage scale to certified journeyperson status."

PART 2 & 3: COURSE OUTLINE & 4-WEEK SYLLABUS (32 HOURS)

Attach this syllabus and instructor credential profile to the WorkBC application portal as required documentation.

PROGRAM FORMAT & HOURS

32 Hours • 4 Weeks (8 hrs/week) • Hybrid

TARGET AUDIENCE

Apprentices (Level 3/4) & Red Seal Challengers

INSTRUCTIONAL FACULTY

[Your Full Name], B.Eng., RSE Plumber

INSTRUCTOR CREDENTIALS

Red Seal Plumber, Class A Gas, HVAC/R, B.Eng.

WEEK 1: NPC Code Layout, Water Supply Sizing & Cross-Connection

8.0 Instructional Hours

6H ASYNCHRONOUS STUDY & MODULE TESTING

- National Plumbing Code division, sections, definitions, and navigation.
- Water supply fixture units (WSFU), Table 2.6.1.1, and velocity limitations.
- Static vs. residual pressure loss calculations and developed length sizing.

2H LIVE VIRTUAL CODE CLINIC

- Timed 25-question diagnostic code lookup clinic.
- Deep-dive: Booster pumps, PRV stations, and backflow prevention protocols.
- Analysis of high-frequency trap questions in water distribution sizing.

WEEK 2: Sanitary Drainage, Specialized Systems & Interceptors

8.0 Instructional Hours

6H ASYNCHRONOUS STUDY & MODULE TESTING

- Hydraulic load calculations (DFU) for horizontal and vertical soil-or-waste pipes.
- Minimum slope sizing rules, building sewer connections, and cleanout spacing.
- Grease, oil, and sand interceptor design, sewage ejectors, and sump venting.

2H LIVE VIRTUAL CODE CLINIC

- Interactive breakdown of Section 2.4 drainage code rules.
- Sump pump sizing calculations and sewage ejector valve assemblies.
- Common drainage calculation pitfalls on the Red Seal exam.

WEEK 3: Complex Venting Systems & Piping Isometric Math

8.0 Instructional Hours

6H ASYNCHRONOUS STUDY & MODULE TESTING

- Circuit venting rules, additional circuit vents, relief vents, and yoke vents.
- Wet venting restrictions: single-story and multi-story wet-vented layouts.
- Rolling 45° and odd-angle offset math, true length, and fitting allowances.

2H LIVE VIRTUAL CODE CLINIC

- Orthographic to isometric schematic interpretation workshop.
- Step-by-step circuit and wet vent sizing walk-throughs.
- Piping offset rapid calculation strategies without complex formulas.

WEEK 4: Full-Length Timed Mock Exam & Red Seal Exam Strategy

8.0 Instructional Hours

6H ASYNCHRONOUS STUDY & MOCK EXAM

- Full 125-question timed simulated Red Seal exam (4-hour testing simulation).
- Automated domain scoring breakdown across trade occupational standards.
- Pre-exam mental endurance, pacing drills, and strategic elimination techniques.

2H LIVE VIRTUAL CODE CLINIC

- Item-by-item autopsy of the 20 lowest-scoring mock exam questions.
- Individual exam readiness assessments and customized final revision plans.
- WorkSafeBC safety questions and testing procedures (air, smoke, hydrostatic).