

Guidelines for Continuing Education Unit (CEU) Evaluation and Credit

Manitoba's [Water and Wastewater Facility Operators Regulation](#) requires water and wastewater facility operators to complete Continuing Education Units (CEU) for the purposes of certificate renewal. The regulation also allows operators to complete CEUs for the purposes of education or experience substitution for certification upgrades.

Operators and employers must track CEU completion and provide copies of completion records together with renewal and/or upgrade applications.

Renewal

CEUs are required to renew an operator certificate every five years:

- 3.0 CEU for small system certificate (or 0.6 CEU per year)
- 6.0 CEU for Class 1 – 4 certificate (or 1.2 CEU per year)

At least 75% of the CEUs completed must be in core subjects pertaining to all categories of certification held by the operator (e.g. water and/or wastewater operations courses), while a maximum of 25% could be non-core (e.g. safety, management, computer, etc.) If a course such as safety or first aid is taken more than once during a renewal period, it can only be counted once towards renewal.

Substitution

Operators may also complete CEUs for:

- substitution for operating experience (Class 2-4)
- substitution for direct responsible charge experience (Class 3-4)
- substitution for post-secondary education (Class 3-4)

CEUs can be substituted for a portion of operating and Direct Responsible Charge (DRC) experience, as per [Table 2 in Schedule B](#) of the Regulation.

CEUs are also able to be substituted for high school education and applicable post-secondary education for Class 3 and Class 4 certification. The Regulation allows substitution of post-secondary education with CEU and DRC to a maximum of 50% of the requirement; e.g., for the requirement of two years applicable post-secondary education: a person may substitute one year of DRC experience in a Class 2 facility, or a higher facility, for one year of post-secondary education.

- 45 CEU = one year of high school or post-secondary education
- One year of post-secondary education = one year DRC experience

Evaluation of Courses for CEU Credit

Manitoba Environment and Climate Change reviews trainings, workshops or courses upon request to determine whether they qualify for CEU credit. The Certification Advisory Committee may also be consulted.

Continued...

The following are not eligible for CEU credits: work-related staff meetings, tours, trade shows (on its own), product demonstration.

Courses that may be assigned CEU credit include classroom courses, seminars, workshops, conferences, in-house training by a utility, correspondence courses and online courses. CEU for correspondence/online courses will be determined by assessing the amount of time it would take to deliver the course in a classroom setting and not the actual time it takes to complete the course. Courses less than three hours in length will generally not be eligible for CEU credit.

The Regulation provides:

Interpretation: "continuing education unit"

1.1(1) For the purpose of this regulation, a person obtains one continuing education unit if they complete 10 contact-hours.

1.1(2) In subsection (1), "**contact-hour**" means one hour of two-way communication and interaction between a learner and instructor that occurs as part of participation in an organized continuing education experience that is recognized by the director.

***** Below is a partial list of CEUs that are recognized by the Certification Program *****

Please check course provider websites regularly to determine if these or other courses are available.

If you have taken training that is not listed here and you think that it is relevant, you may request to submit a course outline/description for review to the Certification Program at wwopcert@gov.mb.ca.

This publication is available in alternate formats, upon request.

***** The list will be updated regularly as new courses are submitted for review *****

1 Life Workplace Safety & Health Ltd.	Neptune Technology Group
Alberta Water & Wastewater Operators Association	Northern Alberta Institute of Technology
Advanced Municipal Solutions Inc.	Power Engineering
American Water Works Association (AWWA)	Red River College
Assiniboine Community College	St. John Ambulance
ATAP Infrastructure Management Ltd.	Safety Services Manitoba
California State University	Thompson Rivers University
Clow Canada	University College of the North
David H Paul, Inc.	University of Manitoba
Deblo Industries Ltd.	University of Saskatchewan
Digital-2000	University of Winnipeg
Echologics Engineering Inc.	Veolia
Elite Safety Services	Walkerton Clean Water Centre
Hydraulic Safety Authority of Canada Inc.	Water First
Malaspina University-College now Vancouver Island University	Western Canada Water (WCW) formerly Western Canada Water and Wastewater Association (WCWWA)
Manitoba Northern Affairs	
Manitoba Construction Conference	Western Canada Water Environment Association (WCWEA)
Manitoba Emergency Measures Organization	YOW Canada
Manitoba Environmental Industries Association (MEIA)	Others
Manitoba Water & Wastewater Association (MWWA)	List of Related Trades
Mueller Co.	

1 Life Workplace Safety & Health Ltd.

<https://1lifesoftware.com/>

Course Name	CEU
Confined Space Awareness	0.3
Fall Protection Awareness	0.3
Harassment and Respectful Workplace Training	0.1
Hazard Awareness**	0.6
Hazard Recognition & Control**	0.3
Incident Causation and Investigation	0.3
Lockout (CSA Standard)	0.3
Personal Protection Equipment	0.3
Safety Committee Essentials*	0.6
Supervisor Essentials*	0.6
Transportation of Dangerous Goods	0.3
Trenching and Shoring Excavations	0.3
Working Alone or in Isolation Awareness	0.1
Workplace Inspections	0.2
Workplace Safety and Health Committee Essentials	0.3
WHMIS	0.3

* will only earn 50% CEU credit when taken in combination with the other

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Alberta Water & Wastewater Operators Association (AWWOA)

<http://www.awwoa.ca/>

Course Name	CEU
Pumps: Theory, Operation and Maintenance (Home study)	3.0
Small Wastewater System Operations (Home study)	0.6

Advanced Municipal Solutions Inc.

<http://www.amssk.ca>

Course Name	CEU
Level 1 and 2 Wastewater Collection Exam Preparation	3.0

American Water Works Association (AWWA)

<http://www.awwa.org>

Course Name	CEU
Disinfection of Pipelines & Storage Facilities	0.4
Fire Hydrant Operations & Maintenance	0.3
Teleconference - Water Resource Alternatives	0.3
UV Disinfection	0.8
Water Efficiency Workshop	1.6
Watershed Protection Seminar	1.6

Assiniboine Community College<http://assiniboine.net/>

Course Name	CEU
Environmental Chemistry	6.0
Inorganic Chemistry	6.0
Land & Water Management Diploma	2 years
Water Quality	3.0

ATAP Infrastructure Management Ltd.<http://www.atap.ca/>

Course Name	CEU
Confined Space Entry	0.6
Clean-In-Place Workshop	0.7
Filter Surveillance and Optimization	0.6
Gas Chlorination (2 days)	1.2
Hypochlorination & Feeder Maintenance	0.6
Iron & Manganese Removal	0.6
Lagoon Operation & Maintenance	0.6
Membrane Filtration	0.6
Membrane Filtration (Class and hands-on training)*	1.2
Portable Reservoir Design, Operation & Maintenance	0.6
Wastewater Collection Maintenance	0.6
Water Distribution System Maintenance (1/2 day)	0.3
Water Main Swabbing	0.6
Water Main Swabbing (2 days with on-site session and hands-on practice)**	1.0
Small Wastewater Works	2.5
Small Water Works	2.2
Water Treatment and Water Distribution Class I (5 days)	3.0
Wastewater Treatment and Wastewater Collection I (5 days)	3.0
Water Treatment and Water Distribution II (5 days)	3.0
Water and Wastewater I (5 weeks)	6.0
Water Distribution III (6 days)	3.2
Water Distribution IV (8 days)	3.6
Water Treatment III (6 days)	3.2
Water Treatment IV (8 days)	3.6
WHMIS & Safety	0.6
WHMIS (1/2 day)	0.3

* Individual attending this course could only get 0.6 CEU if the individual has already completed the 1-day filtration course worth 0.6 CEU

** Individual attending this course could only get 0.4 CEU if the individual has already completed the 1-day water main swabbing worth 0.6 CEU

California State University<http://www.owp.csus.edu/courses/catalog.php>

Course Name	CEU
Advanced WWT	9.0
Distribution Facilities - WAT703B	0.9
Industrial Waste Treatment 1A – Introduction, Safety, Waste Monitoring, and Preliminary Treatment	4.2
Industrial Waste Treatment 1B – Physical and Physical-Chemical Treatment and Treatment of Metal Wastestreams	3.8
Industrial Waste Treatment 1C – Instrumentation and Control and Facility Maintenance	3.3
Industrial Waste Treatment 2A – Introduction and Fixed Film Processes	2.6
Industrial Waste Treatment 2B – Activated Sludge Processes and Nutrient Removal	3.7
Industrial Waste Treatment 2C – Anaerobic Treatment and Residual Solids Management	3.5
Manage for Success	4.5
Operation & Maintenance Wastewater Collection Systems Vol. 2	6.4
Operation & Maintenance Wastewater Collection Systems Vol. I	9.0
Operation of Wastewater Treatment Plants Vol. 3 (A-B)	5.7
Operation of Wastewater Treatment Plants Vol. 2 (A-C)	9.8
Operation of Wastewater Treatment Plants Vol. 1 (A-C)	12.1
Pretreatment Facility Inspection	7.5
Small Wastewater Systems Operations and Maintenance Vol. II	9.0
Small Wastewater Systems Operations and Maintenance Vol. I	9.0
Small Water Systems Video Information System	3.0
Treatment of Metal Wastestreams	2.6
Utility Management (2021)	1.6
Water Distribution System Operation & Maintenance	9.0
Water System Operation and Maintenance Video Training Series	3.0
Water Treatment Plant Operation Vol. 2, post-88	9.0
Water Treatment Plant Operation Vol. I, post-88	9.0

Clow Canada<http://www.clowcanada.com/>

Course Name	CEU
Fire Hydrant and Valve Maintenance - 2010 onwards	0.6

David H. Paul, Inc.

<https://www.dhptraining.com/home>

Course Name	CEU
Reverse Osmosis Operation, Maintenance & Troubleshooting (3 days)	1.5
Monitoring and Troubleshooting of RO Units	0.7
Operation, Control and Maintenance of RO Pre-treatment	0.7
Operation, Control and Maintenance of RO Units	0.7
Optimal Design and Operation of RO Systems (2 days)	1.2

Deblo Industries Ltd.

www.deblo.ca

Course Name	CEU
Hydrant and Valve Maintenance Program (online)	0.3

Digital-2000

<https://www.digital-2000.com/>

Course Name	CEU
Chemical Safety Module (online)	0.1
Electrical Safety (online)	0.1
Elevated Work* (online)	0.1
Field Equipment Module II* (online)	0.1
Field Equipment Module I (online)	0.15
Field Operations Safety Module III (online)	0.1
Field Operations Safety Module II (online)	0.1
Field Operations Safety Module I (online)	0.1
First Aid Module (online)	0.15
Personnel Protective Equipment Module (online)	0.15
Tool Safety (online)	0.1
Treatment Plant Safety Module (online)	0.2
Water/Wastewater Operations Safety Module (online)	0.15

*Cannot be combined due to overlapping topics

Echologics Engineering Inc.

<http://echologics.com/>

Course Name	CEU
Water Leak Detection Listening Course	0.6

Elite Safety Services<http://www.elitesafetyservices.ca/>

Course Name	CEU
Anhydrous Ammonia	0.3
Chlorine Kit "B": & Decon	0.3
Confined Space Entry (16 hours)*	1.2
Confined Space Rescue (16 hours)* If they have not completed Confined Space Entry	1.2
Confined Space Rescue (16 hours) If they have completed Confined Space Entry	0.5
Fall Protection	0.6
First Aid/CPR (2 days)	1.0
H2S Alive	0.5
H2S Awareness	0.3
HVAC Training: Basic Filtration 101	0.2
Incident Command System	0.3
Level A 7 Level B – CPC	0.6
Self-Contained Breathing Apparatus (SCBA)	0.6

*Some topics overlap

Hydraulic Safety Authority of Canada Inc.<https://hsac.ca/>

Course Name	CEU
Hydraulic Safety Exposure Level Instructor Led	0.7
Hydraulic Safety Exposure Level E-Learning	0.7
Hydraulic Safety High Risk Maintenance Level Instructor-Led	1.4
Hydraulic Safety Risk Maintenance Level E-Learning	0.7

Malaspina University-College (now Vancouver Island University)<https://www.viu.ca/>

Course Name	CEU
Water Technician Course	82.0

Manitoba Construction Conference<http://www.constructionconference.ca/>

Course Name	CEU
Accident Investigation	0.4
Confined Space Awareness	0.7
Conflict Management	0.4
Electrical Safety/Arc Flash & Electrical Hazards	0.3
Emergency Preparedness	0.3
Environmental Management in Construction Industry	0.7

Manitoba Construction Conference (Cont'd)

Course Name	CEU
Excavation and Trenching	0.3
Fall Protection Systems	0.3
Flag Person Training	0.3
Ground Disturbance	0.7
H2S Alive	0.7
Hazard Assessment, Analysis and Control	0.3
Health Hazards	0.4
Incident Investigation	0.3
PPE	0.4
Project Safety Plans	0.3
Safe Work Procedures	0.3
Safety Skills for Supervisors	0.7
Workplace Safety Legislation	0.3

Manitoba Emergency Measures Organization

<http://www.gov.mb.ca/emo/>

Course Name	CEU
Manitoba Emergency Management Course (2-day course)	1.0

Manitoba Environmental Industries Association

<https://meia.mb.ca/>

Course Name	CEU
Assistant Water Operator Training	5.55

Manitoba Water & Wastewater Association (MWWA)

<https://www.mwwa.net/>

Course Name	CEU
MWWA Annual Conference – CEUs evaluated annually	TBD
Analytical Measurements for Water	0.3
Backflow Prevention and Cross Connection Awareness	0.65
Basic Lab Procedures for Water Operators	0.7
Benefits of Digital Communication	0.3
Biological Nutrient Removal	1.2
Calculations for Water and Wastewater Operators	0.6
Calculations in Wastewater Technology	0.6
Care, Maintenance & Inspection Wells	0.6
Chemical/Biological Hazards Control (including WHMIS)	0.6
Chemical Safety	0.7
Chlorination and Disinfection Refresher	0.7
Chlorine Handling	0.6

Manitoba Water & Wastewater Association (MWWA) (Cont'd)

Course Name	CEU
Climate Change Impacts on Water Systems and How to Manage	0.7
Collection System Odour and Corrosion Control	0.7
Collection System Valve Operation & Maintenance	0.7
Communication and Financial Skills	0.6
Confined Space and External Rescue Workshop (2 days)	1.2
Controlling Wastewater Collection Inflow and Infiltration	0.7
Creation of Emergency Response Plans	0.6
Cyanotoxins and Their Treatment	0.7
Disinfection Alternatives Workshop	0.7
Distribution System Breaks and Repairs	0.6
Distribution System Operation & Maintenance	0.6
Drinking Water – Theory and Optimizing Your Testing	0.6
Effluent Disinfection	0.7
Emergency Response Plans Workshop	0.6
Emerging Issues in Water Treatment	0.7
Equipment Preventative Maintenance	0.7
Excel Form Development	0.6
Fall Protection	0.6
Filament Identification and Process Control in Activated Sludge	2.2
Filter Surveillance	0.6
Filter Workshop	0.6
Flag Person Training Workshop	0.6
Flow Meter Fundamentals	0.6
Fundamentals of Pumping; Centrifugal pump basics, Hydraulics Applications & Troubleshooting	0.4
General Guidelines for Creation of SOPs 2010	0.6
GPS/GIS Workshop	0.6
Hydrant & Valve Maintenance Workshop	0.6
Hydrant & Valve Maintenance - Online	0.3
Hydrogen Sulphide Awareness	0.4
H2S Alive	0.7
Industrial Confined Space Awareness Workshop	0.6
Innovative Pumping Technologies to Increase Efficiencies in Municipal Systems	0.6
Introduction to Hydrogeology & Groundwater Management - Virtual Classroom	1.2
Introduction to Supervisory and Leadership Skills - Virtual Classroom	1.2
Iron and Manganese Removal Workshop	0.6
Issues & Trends in Industrial Wastewater Treatment	1.0
Jar Testing Workshop	0.7
Lab Practices – WW Treatment	0.5
Lagoon Workshop	0.6
Leak Detection, Water Distribution Maintenance, Leak Repair/ Swabbing and Uni-directional Flushing, Pipe Condition Assessment	0.6
Lift Stations Operations and Maintenance	0.6
Management and Supervision for Water and Wastewater Operators	1.2

Manitoba Water & Wastewater Association (MWWA) (Cont'd)

Course Name	CEU
Managing Infiltration and Inflow in Wastewater Collection Systems	0.6
Managing People	0.6
Membrane Bioreactors for Municipal Wastewater Treatment	0.5
Membrane Filtration Workshop 2010	0.6
Membrane Water Technology Workshop	0.6
Multi-Barrier Approach to Drinking Water	0.7
Municipal Plan Reading	0.6
Municipal Wastewater System Maintenance Seminar	0.4
Nutrient Removal Workshop 2010	0.6
Online Training - Hydrant & Gate Valve Maintenance	0.3
Operational Best Practices in Water Distribution Systems	0.6
Overview of Water Storage Systems	0.7
Personal Protective Safety	0.63
Ponds & Lagoons	0.7
Pressure Testing & Disinfection Post Repair & Installation	0.6
Preventing Waterborne Illness	0.6
Principles & Practices of Drinking Water Chlorination	0.6
Process Control and SCADA Fundamentals - Virtual Classroom	0.6
Project Management Skills	0.6
Pumping; Centrifugal Pump Basics, Hydraulics Applications & Troubleshooting	0.6
Pump Maintenance & Variable Frequency Drive	0.6
Pump Workshop 2011	0.65
Record Keeping	0.7
Reservoir Maintenance & Cleaning	0.6
Respiratory Protection Training SCBA/SAR	0.6
Safe Handling of Sodium Hypochlorite and Chlorine	0.5
SCADA Systems Overview for Operators	0.7
SCADA, Instrumentation and Automation Workshop	0.3
Service Line Applications and Tapping	0.6
Sewer Flushing & Cleaning Techniques	0.7
Source and Receiving Environments	0.6
Source Water Protection	0.6
Stormwater Management	0.7
Supervisors and Safe Work	0.6
Supervisor Safety & Health Responsibilities and Incident Investigation	0.6
Tapping Workshop	0.6
The Distribution System: Protect your Water from Source to Tap	0.7
Transportation of Dangerous Goods Ground and Workplace Hazardous Material Information System (WHMIS)	0.8
Troubleshooting Skills for Water Distribution Operators	0.7
Turbidity Workshop	0.6
Understanding System Hydraulics	0.7
Unidirectional Flushing	0.6

Manitoba Water & Wastewater Association (MWWA) (Cont'd)

Course Name	CEU
UV Disinfection	0.6
Wastewater Collection 3 - 4	3
Wastewater Collection System Odor and Corrosion Control	0.6
Wastewater Digester Operation and Control	0.7
Wastewater Disinfect Selkirk	0.6
Wastewater Microbiology	0.7
Wastewater Problem Solving	0.7
Wastewater Pumping Station and Forcemain Systems Design, Operation and Maintenance Workshop	1.2
Wastewater Treatment 3-4 Preparation Course	3
Water Distribution – Aging Infrastructure	0.6
Water & Wastewater Chemistry for Operators	0.6
Water Distribution 3-4 Preparation Course	3
Water Distribution Maintenance	0.3
Water Distribution Operation and Maintenance	0.6
Water Loss Management - Leak Detection	0.7
Water Meter: Customer Service Usage & Operation Issues	0.7
Water Quality & Sampling - Water and Wastewater	0.6
Water Quality & Sampling - Water Only	0.6
Water Quality Sampling & Testing - Water & WW	0.6
Water Treatment 3-4 Preparation Course	3
Watermain Disinfection for the Field Operator	0.6
Wells – Operation, Maintenance and Troubleshooting	0.6
WHMIS Chemical Handling for W/WW Facilities	0.6
Winnipeg Chlorination and Disinfection Refresher	0.7
Winter Wise – The Cold Hard Facts about Distribution Systems	0.7

Mueller Co.

<https://www.muellercompany.com/services/>

Course Name	CEU
Hydrants, Valve and Service Brass Training	0.3
Mueller Mobile Training	0.5

Neptune Technology Group

<https://www.neptunetg.com/>

Course Name	CEU
Neptune Water Meter and Reading System User's Group	0.3

Northern Alberta Institute of Technology<http://www.nait.ca/>

Course Name	CEU
Hydraulics & Blueprint Reading	7.0
NAIT Water & Wastewater Technician	90.0
Science and Electricity	4.0
Support Systems	9.0
Technical Mathematics Part 1	4.5
Wastewater Collection II – WWW213	6.0
Wastewater Collection I – WWW103	5.0
Wastewater Treatment II – WWW204	9.0
Wastewater Treatment I – WWW104	9.0
Water Distribution II – WWW201	6.0
Water Distribution I – WWW101	6.0
Water Treatment II – WWW202	9.0
Water Treatment I – WWW102	8.0

Power Engineering

To receive CEU credit the applicant must submit a copy of course completion certificate or transcripts.

Course Name	CEU
Power Engineering 5 th Class	11.2
Power Engineering 4 th Class	20.0
Power Engineering 3 rd Class	20.0
Power Engineering 2 nd Class	20.0
Power Engineering 1 st Class	10.0
Power Engineering Technology	2 years post-secondary

Red River College<https://www.rrc.ca>

Course Name	CEU
Apprenticeship Landscape Horticulturalist	1 year
Business Communications 1 - COMM 1000	6.4
Cured-in-Place Pipelining Trenchless Technologies SEMR-9586 and ID 257158	0.4
Environmental Issues ENVI-1015 (Not being offered)	4.0
Environmental Protection Technology	3 years post-secondary
Managing Occupational Health & Safety - E33H109	6.0
Water and Wastewater Foundations (one week) WATR-1007	3.0
Municipal Technology Diploma	3 years
Occupational Health & Safety Data Management - E33H102	2.0
Occupational Health & Safety Risk Management - E33H101	4.0

Red River College (Cont'd)

Course Name	CEU
Occupational Hygiene - E33H103	4.0
Occupational Safety - E33H105	4.0
Plumbing Cross Connection Control	3.5
Project Management: Fundamentals - E33H107	4.0
Small Water Systems (4 day)	3.0
Small Wastewater Systems WATR-1543	3.0
Water Treatment 1 (4 day) WATR-1032	3.0
Water Distribution (4 day) WATR-1010	3.0
Wastewater Collection (4 day) WATR-1003	3.0
Wastewater Treatment 1 (4 day) WATR-1031	3.0
Water Treatment 2 (4 day) WATR-2032	3.0
Wastewater Treatment 2 (4 day) WATR-2031	3.0
Wastewater Treatment III (9 day) WATR-3031	6.3
Onsite Wastewater Management (Septic field) Installers (one week) CONF-1151	3.0

St. John Ambulance

<http://www.sja.ca/>

Course Name	CEU
First Aid/CPR	0.6

Safety Services Manitoba

<http://www.safetyservicesmanitoba.ca/>

Course Name	CEU
Confined Space Entry	1.0
Fall Protection	0.6
Flag Person Certification Course	0.6
Safe Work Conference 2013	0.5
WHMIS, Confined Space Refresher/Awareness	0.6

Thompson Rivers University

<http://www.tru.ca/>

Course Name	CEU
Adv Coagulation & Particle Removal - WWTP 272 *	4.5
Applied Math and Science - WWTP 172 *	4.5
Disinfection - WWTP 274 *	4.5
Electrical Fundamentals II - WWTP 270 *	4.5
Electrical Fundamentals I - WWTP 180 *	4.5
Environment & Health Issues - WWTP 174 *	4.5
Filtration - WWTP 273 *	4.5
Instrumentation II - WWTP 282 *	4.5
Instrumentation I - WWTP 182 *	4.5

Thompson Rivers University (Cont'd)

Course Name	CEU
Limnology - WWTP 281 *	4.5
Mechanical Systems II - WWTP 183 *	4.5
Mechanical Systems I - WWTP 173 *	4.5
Microbiology & Toxicology - WWTP 280 *	4.5
Practicum II - WWTP 289 *	4.5
Practicum I - WWTP 189 *	4.5
Supervisory & Leadership Skills - WWTP 283 *	4.5
Water Chemistry - WWTP 271 *	4.5
Water Sources - WWTP 170 *	4.5
Water Treatment II - WWTP 185 *	4.5
Water Treatment I - WWTP 171 *	4.5
Water Treatment Technology Diploma	90.0

* Each course can be separated into smaller modules and each module is worth 1.5 CEU

University College of the North

<https://www.ucn.ca/nrmt/>

Course Name	CEU
Natural Resources Management Technology	2 years post-secondary

University of Manitoba

<http://umanitoba.ca/>

Course Name	CEU
Bachelor of Science (Major)	4 years post-secondary
Bachelor of Science	3 years post-secondary
Basic Plant Science	3.0
Biology: Biological Diversity and Interaction (online study)	3.0
Biology: Foundations of Life (online study/flexible study)	3.0
Calculus 2	3.0
Calculus - Intro	3.0
Crop Science	5.0
Engineering Degree	4 years post-secondary
Environmental Science 1: Concepts (online study)	3.0
Essentials of Microbiology (online study)	3.0
Farm Insects	3.0
Farm Machinery	4.0

University of Manitoba (Cont'd)

Course Name	CEU
Farm Power	4.0
Personnel Management - 41.249	3.0
Soil Management	3.0
Soils 2 - Intro	3.0
Soils 1 - Intro	3.0
Weed Control	3.0

University of Saskatchewan

<http://www.usask.ca/>

<https://saskpolytech.ca/>

Course Name	CEU
Analysis and Design	3.0
Analytical Geometry	3.0
Calculus 2 - Intro	3.0
Calculus 1 - Intro	3.0
Differential Calculus	3.0
Electricity and Magnetism 2	3.0
Electricity and Magnetism 1	3.0
General Chemistry	3.0
Graphics and Design	3.0
Materials Strength	3.0
Mechanics 3	3.0
Mechanics 2	3.0
Mechanics 1	3.0
Diploma in Surveying Engineering Technology (SIAST)	2.5 years post-secondary
Water and Wastewater Technician Diploma (SIAST)	90.0

University of Winnipeg

<http://www.uwinnipeg.ca/>

Course Name	CEU
Agricultural Geography - GEOG.2401	3.0
Atmospheric Science - Intro - GEOG.1201	3.0
Atmospheric Science - Intro - GEOG	3.0
Bachelor of Science in Environmental Studies	4 years post-secondary
Calculus - Intro - MATH.1101	6.0
Chemistry & Society - CHEM.2801	3.0
Chemistry & Society - CHEM	3.0
Chemistry - Intro - CHEM.1101	6.0
Earth Science - Intro - GEOG.1202	3.0

University of Winnipeg (Cont'd)

Course Name	CEU
Environment & Health - ENV.2604	3.0
Environmental Biology - BIOL.1106	3.0
Environmental Economics - ECON.2317	3.0
Environmental Ethics - PHIL.2233	3.0
Environmental Impact Assessment - ENV.4611	6.0
Environmental Perceptions - GEOG.2408	3.0
Environmental Sustainability - ENV.2306	3.0
Issues Sustainable Cities - ENV.3025	3.0
Law and the Environment - ENV.3035	3.0
PHYS.1101	6.0
Statistical Techniques for Environmental Analysis - GEOG.2309	3.0
Water Resources - GEOG.3408	3.0

Veolia

<https://academy.veolia.us/course-approvals/>

Course Name	CEU
Wastewater Treatment Course ID: 16933	5.7
Wastewater Collections Course ID: 17015	3.2

Water First

<https://waterfirst.ngo>

Course Name	CEU
Water Quality Analyst	2.6

Walkerton Clean Water Centre

<https://wccw.ca/>

Course Name	CEU
Ethics for Drinking Water Officers	0.3
Intro to Chemistry Principles	0.3
Intro to Pressure: Hazards and Best Practices	0.3
Responsibilities Under the Statutory Standard of Care	0.3
Operation of Small Drinking Water Systems	1.8

Western Canada Water (WCW)

formerly Western Canada Water and Wastewater Association (WCWWA)

<http://www.wcwwa.ca/>

Course Name	CEU
Assessing and Addressing Challenging Hydraulic	0.4

Western Canada Water (WCW) (Cont'd)

Course Name	CEU
Asset Management Workshop: The Economics of a “Hot Spot” Upgrade Strategy for Water Mains	0.3
Biosolids	0.3
Biosolids and Residuals	0.5
Biosolids Management; Understanding Requirements and Options	0.3
CCC Conference	0.6
Chemical Feed Pump Systems	0.3
Contract law for Engineers	0.3
Conventional Water Treatment	0.3
Cross Connection Control Through Awareness and Backflow Prevention	0.3
Dealing with Customer Complaints	0.3
Disinfection By-product Seminar	0.6
Disinfection of Pipelines and Storage Facilities	0.3
Drinking Water Safety Plan Information Session	0.3
Emergency Response Planning	1.5
Green Building: Clear Savings Potential	0.3
Greenhouse Gases and Carbon Footprinting in the Water/Wastewater Industry	0.4
Leadership Concerns Workshop	0.3
Leadership in Project Management	0.3
Mathematics (correspondence)	9.0
Membrane Optimization	0.3
Membrane Technologies for Water and Wastewater Treatment	0.6
Membrane Technologies for Water Treatment	0.5
Membrane Theory and Maintenance Workshop	0.6
Municipal Wastewater: Basics, Treatment, Regulations and Case Studies	0.6
Municipal Water Reuse - Challenges and Opportunities	0.7
On-Site Hypochlorite Generation as a Chemical Disinfection Alternative	0.6
Problem Solving Water & Wastewater Infrastructure	0.5
Project Management	0.3
Project Planning, Delivery & Commissioning Seminar	1.2
Pumps & Forcemains	0.3
Pump Operations & Maintenance	0.4
Public Consultation Process	0.3
Regional Water Systems - Design and Operation Basics	0.3
Reservoir Water Quality Management	0.3
River Health	0.3
SCADA Fundamentals	0.3
Sewage Lagoon Treatment	0.5
Source Control Strategies That Work	0.3
Source Water Protection	0.3
Surface Water Treatment Workshop	0.7
Tertiary Filtration Workshop	0.3

Western Canada Water (WCW) (Cont'd)

Course Name	CEU
The Future Art of Stormwater	0.5
Utility Asset Management	0.3
Utility Management Workshop - A Holistic Approach to Your Utility	0.7
Vulnerability Assessment Workshop	0.7
Wastewater Pumping Station and Forcemain Systems Design, Operation and Maintenance Workshop	1.2
Water Conservation Guidelines - Water Audits, Loss Control and Non-revenue Water Loss	0.3
Water Main Relining	0.3
Water Management	0.3
Water Reuse in Western Canada - Drivers, Technologies and Examples	0.3
Watershed and Stormwater Management	0.3
Water Treatment Plant Operation correspondence course	15.0
Water Treatment Disinfection Workshop	0.7
Web Workshop on Pumps Operations and Maintenance	0.4
Where has all our Water Gone	0.4
Where has all our Water Gone? Part 2	0.3
Your Lead Sampling Program	0.3

Western Canada Water Environment Association (WCWEA)

<http://www.wcwea.org/>

Course Name	CEU
Nutrient Removal Seminar 2005	1.3

YOW Canada

<http://www.yowcanada.com/>

Course Name	CEU
TDG for All Workers (online course)	0.3

Others

Course Name	CEU
City of Brandon Respiratory Protection Training	0.3
Confined Space Entry	0.6
Fall Protection	0.3
Lift Truck Operator	0.3

List of Related Trades

The following is a list of trades in Manitoba that are eligible for CEU credit for the purposes of the Manitoba Water and Wastewater Facility Operators Certification Program. Completion of the theory or in-school portion of a related trade is eligible for CEU credit. The percentage listed below is the percentage of classroom time that will be eligible for credit.

Manitoba Trade Name	Percentage of theory accepted for CEU credit
Plumber	100%
Electrician	100%
Water, Fuels and Environment Technician DP3A #0023	100% (90 CEUs)