

Becoming a Marine Engineer in Canada

The costs of obtaining and maintaining a Transport Canada 1st Class Marine Engineering Certificate of Competency using the Alternate Path (Hawsepiping)

A list of "out of pocket" expenses, and time commitments, as of January 2013, to work as a ship's engine room professional in Canada. Does not include lost wages, cost of transportation, housing, food, taxes, etc. Nor does it include numerous social costs.

	TC Fees	Training Fee	Training Days	Sea Time *****	
ER Rating	Obtain Mariner's Discharge Book and a CDN number	\$0.00		0.5	
	Pictures for Mariner's Discharge Book (passport pic)	\$15.00			
	MED (Marine Emergency Duties) STCW VI/1 - Basic Safety **		\$1,590.00	6	
	MED STCW VI/2 - survival craft and rescue boats **		\$1,060.00	4	
	Marine Basic First Aid **		\$225.00	2	
	Seafarer's Medical Certificate		\$150.00	1	
	Written OR oral examination on General Engineering Knowledge ***	\$27.50		1	
Total	\$42.50	\$3,025.00	14.5	0	
Pre-COC Training	TC Approved Skills Training (i.e. Diesel Mechanic at BCIT)		\$4,018.60	210	
	Training Record Book completion		\$0.00	30	
	Georgian College Alternate Path - Cutting and Welding Basic		\$1,700.00	10	
	Georgian College Alternate Path - Electrical Basic		\$950.00	5	
	Georgian College Alternate Path - Machining Basic		\$1,700.00	10	
	Qualifying Service				1080
Total	\$0.00	\$8,368.60	265	1080	
4th Class COC	PPS (Propulsion Plant Simulator) Level 1 – Watchkeeping Practices *		\$798.98	14	
	Simulator Examination ***	\$55.00		1	
	MED (Marine Emergency Duties) STCW VI/1 - Basic Safety **		\$1,590.00	6	
	MED STCW VI/2 - survival craft and rescue boats **		\$1,060.00	4	
	MED VI/3 - advanced fire fighting for Officers **		\$1,400.00	5	
	Marine Advance First Aid (MAFA) **		\$540.00	5	
	Tanker Endorsement (Familiarization) (Not required for COC)		\$750.00	5	
	General Engineering Knowledge Examination - multiple choice examination	\$27.50		1	
	EK Motors / Steam - multiple choice examination ***	\$27.50		1	
	EK - oral examination ***	\$55.00		1	
Certificate of Competency ***	\$0.00		0.5		
Total	\$165.00	\$6,138.98	43.5	0	
3rd Class COC Preparation	TC 3rd Class Math Applied Mechanics Course ****		\$800.00	75	
	TC 3rd Class Thermodynamics Course ****		\$800.00	45	
	TC 3rd Class Electrotechnology Course ****		\$450.00	45	
	TC 3rd Class EK General Course ****		\$450.00	30	
	TC 3rd Class EK Motors Course ****		\$450.00	30	
	Qualifying Service (> 500kW)				360
Total Preparation	\$0.00	\$2,950.00	225	360	
3rd Class COC	MED D - Senior officer training *		\$189.36		
	Applied Math - written examination 3.5 hours ***	\$27.50		1	
	Applied Mechanics -written examination 3.5 hours ***	\$27.50		1	
	Applied Thermodynamics -written examination 3.5 hours ***	\$27.50		1	
	Electro Tech -written examination 3.5 hours ***	\$27.50		1	
	EK General-written examination 3.5 hours ***	\$27.50		1	
	EK Motor or Steam -written examination 3.5 hours ***	\$27.50		1	
	EK -oral examination ***	\$55.00		1	
Certificate of Competency ***	\$0.00		0.5		
Total	\$220.00	\$189.36	7.5	0	
2nd Class COC Preparation	TC 2nd Class Math Refresher Course ****		\$250.00	20	
	TC 2nd Class Applied Mechanics Course ****		\$800.00	37	
	TC 2nd Class Thermodynamics Course ****		\$800.00	37	
	TC 2nd Class Electrotechnology Course ****		\$450.00	37	
	TC 2nd Class Technical Drawing Course ****		\$800.00	37	
	TC 2nd Class Naval Architecture Course ****		\$450.00	37	
	TC 2nd Class EK General Course ****		\$450.00	30	
	TC 2nd Class EK Motors Course ****		\$450.00	30	
	Qualifying Service (> 750kW)				360
	Total Preparation	\$0.00	\$4,450.00	265	360
2nd Class COC	PPS Level 2 - Plant management *		\$1,008.47	11	
	Simulator Examination ***	\$55.00		1	
	Applied Mechanics -written examination 3.5 hours ***	\$27.50		1	
	Applied Thermodynamics -written examination 3.5 hours ***	\$27.50		1	
	Electro Tech -written examination 3.5 hours ***	\$27.50		1	
	Naval Architecture -written examination 3.5 hours ***	\$27.50		1	
	Technical Drawing -written examination 6 hours ***	\$27.50		1	
	EK General-written examination 3.5 hours ***	\$27.50		1	
	EK Motor or Steam -written examination 3.5 hours ***	\$27.50		1	
	EK -oral examination ***	\$55.00		1	
Certificate of Competency ***	\$0.00		0.5		
Total	\$302.50	\$1,008.47	20.5	0	

Becoming a Marine Engineer in Canada

1st Class COC Preparation	TC 1st Class Math Refresher Course ****	\$250.00	20		
	TC 1st Class Applied Mechanics Course ****	\$800.00	37		
	TC 1st Class Thermodynamics Course ****	\$800.00	37		
	TC 1st Class Electrotechnology Course ****	\$450.00	37		
	TC 1st Class Naval Architecture Course ****	\$450.00	37		
	TC 1st Class EK General Course ****	\$450.00	30		
	TC 1st Class EK Motors Course ****	\$450.00	30		
Qualifying Service (6 months > 1500kW, 9 months > 3000kW)				450	
Total Preparation		\$0.00	\$3,650.00	228	450
1st Class COC	Applied Mechanics -written examination 3.5 hours ***	\$27.50		1	
	Applied Thermodynamics -written examination 3.5 hours ***	\$27.50		1	
	Electro Tech -written examination 3.5 hours ***	\$27.50		1	
	Naval Architecture -written examination 3.5 hours ***	\$27.50		1	
	EK -written examination 3.5 hours ***	\$27.50		1	
	EK Motor or Steam -written examination 3.5 hours ***	\$27.50		1	
	EK -oral examination ***	\$55.00		1	
Certificate of Competency ***	\$0.00		0.5		
Total		\$220.00	\$0.00	7.5	0

		Unit Cost		Annual cost	
Annual COC / Work maintenance cost	Certificate of Competency renewal ***	\$27.50	0.5	\$5.50	0.1
	Seafarer's Medical Certificate	\$150.00	0.5	\$75.00	0.1
	Marine Advance First Aid (MAFA) **	\$540.00	5	\$108.00	1.0
	Canadian Passport (depends on company)	\$120.00	0.5	\$24.00	0.1
	Professional Membership in CIMarE (optional)	\$110.00	0	\$110.00	0.0
	Union Dues (depends on company)	\$96.00	0	\$1,152.00	0.0
Total		\$1,043.50	6.5	\$1,474.50	1.3

Additional	Georgian College - ER Resource Management	\$2,247.00	4
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- * BCIT Marine Campus, North Vancouver, BC
- ** Western Maritime Institute, Nanaimo, BC
- *** Transport Canada Marine Safety
- **** Memorial University / Fisheries and Marine Institute, NF
- ***** Sea Time - 8 hrs days and refers to Transport Canada qualifying service which must meet certain requirements. i.e. horsepower, type of propulsion, rank / duty onboard, specific vessel types.

Total Training / Certification Costs and Time required	\$32,817.41	9.2 Years
Total training time commitment - in months	35.9	3.0 Years
Total sea time requirements - in months	75.0	6.3 Years