

New Curriculum Development



IMTARC Labour Market Partnership Project

(Funded by Provincial Contribution to IMTARC through Labour Market Agreement funding of \$550K)

- Develop a **new SB&R Pre-Employment Training Program** for new entrants to the sector – that provides essential skills, industry orientation and exposure to marine trades – (BCIT, Camosun, VIU, NIC) – *also developing on-line training modules*
- Develop a **Marine Terminology Program** for workers from other sectors that are entering SB&R sector
- Develop **Industrial Marine Estimating Program** for ship repair (public & private) activities
- Develop **Industrial Marine Planning & Scheduling Program** for ship construction and ship repair activities
- Develop **Specialized Leadership Skills Programs** (conflict resolution, interpersonal communications, coaching & mentoring) targeted at the SB&R sector

Shipbuilding and Repair

ENTRY LEVEL TRAINING



Goal:

- To address an industry need for certified and competent personnel at a basic and general level.
- To provide students, unfamiliar with the marine industry, with a safe and controlled environment from which to learn and develop a detailed understanding of the opportunities which exist in this sector.

Objectives:

Develop clear understandings and attitudes around:

- Work place safety.
- Enhance personnel certifications and qualifications.
- Experience a variety of tasks and occupations within the marine industry.
- Confirm essential skills.
- Understand employer needs and expectations.

Outcomes:

Successful students will be able to enter the marine industry safely and competently, aware of opportunities to work, advance and progress. The skills and attitudes attained will be beneficial and transferable to other industry occupations.

COURSE PROFILE (DACUM CHART)

SRELT – Marine Training Profile (Skilled Marine Worker)

<div>Orientation</div> <div>34hr</div>	A	1. Describe Shipbuilding Industry 10hr	2. Explain Employers' Expectations 8hr	3. Use Marine Terminology 8hr	4. Describe the Hierarchy of Respective Customers 8hr
		1. Explain the Function of a Shipyard 6hr	2. Explain Survey and Inspection 10hr	3. Describe the Shipbuilding Process 10hr	4. Describe the Ship Repair Process 10hr
		1. Use WorkSafe Regulations 29hr	2. Complete Level 1 First-Aid Certification 8hr	3. Complete WHMIS/TDG Certification 6hr	4. Complete Fall Protection Certification 8hr
		5. Conduct Confined Space Entry 6hr	6. Complete Forklift Operator Certification 8hr	7. Erect Scaffolds & Ladders 8hr	8. Describe Types of Fires 4hr
<div>Shipbuilding & Repair</div> <div>36hr</div>	B	9. Complete Man Lift Op Certification 10hr	10. Identify Shipyard Specific Hazards 10hr		
		1. Use Verbal Communication Skills 2hr	2. Use Written Communication Skills 2hr	3. Explain the Scope of an Employment Interview 6hr	4. Complete a Placement Assessment 2hr
		5. Use a Scientific Calculator 1hr	6. Solve Decimal Conversions 4hr	7. Solve Metric and Imperial Linear Conversions 4hr	8. Solve Ratio and Proportion Calculations 4hr
		9. Solve Area and Perimeter Calculations 8hr	10. Solve Mass Calculations 8hr		
<div>Safety & Certification</div> <div>97hr</div>	C				
<div>Employability Skills</div> <div>41hr</div>	D				

Shop Equipment
& Hand Tools
46hr

E

1. Use Measuring Tools 2hr	2. Use Level & Alignment Devices 2hr	3. Use Square & Layout Tools 2hr	4. Use Basic Hand Tools 2hr
5. Describe Shop Equipment 4hr	6. Use a Drill Motor, Twist Drill, and Hole Saw 2hr	7. Use a Circular Saw 4hr	8. Use a Chainsaw 2hr
9. Use a Drill Press 2hr	10. Use a Chop Saw 2hr	11. Use a Horizontal Band Saw 2hr	12. Use a Nail Gun 2hr
13. Use an Angle Grinder 2hr	14. Prepare Surfaces for Coating 10hr	15. Explain Protective Coatings 6hr	

Material Identification & Storage
42hr

F

1. Describe Ferrous and Non-Ferrous Materials 2hr	2. Describe Plate & Structural Steel Shapes 2hr	3. Describe Safe Rigging Practices 12hr	4. Use Material Handling Equipment 6hr
5. Use Housekeeping Skills 2hr	6. Explain Material Storage Systems 4hr	7. Prepare a Pallet for Shipping 8hr	8. Describe Fasteners Used in Ship Construction 6hr

Ship Design & Layout
46hr

G

1. Describe Basic Ship Design 6hr	2. Explain Blueprints & Lines Plan 20hr	3. Explain Types of Vessels 6hr	4. Describe Classification Bodies for Ship Const. 6hr
5. Describe Sequence of Ship Const. 6hr	6. Explain Quality Control/ QA Required in Ship Const. 2hr		

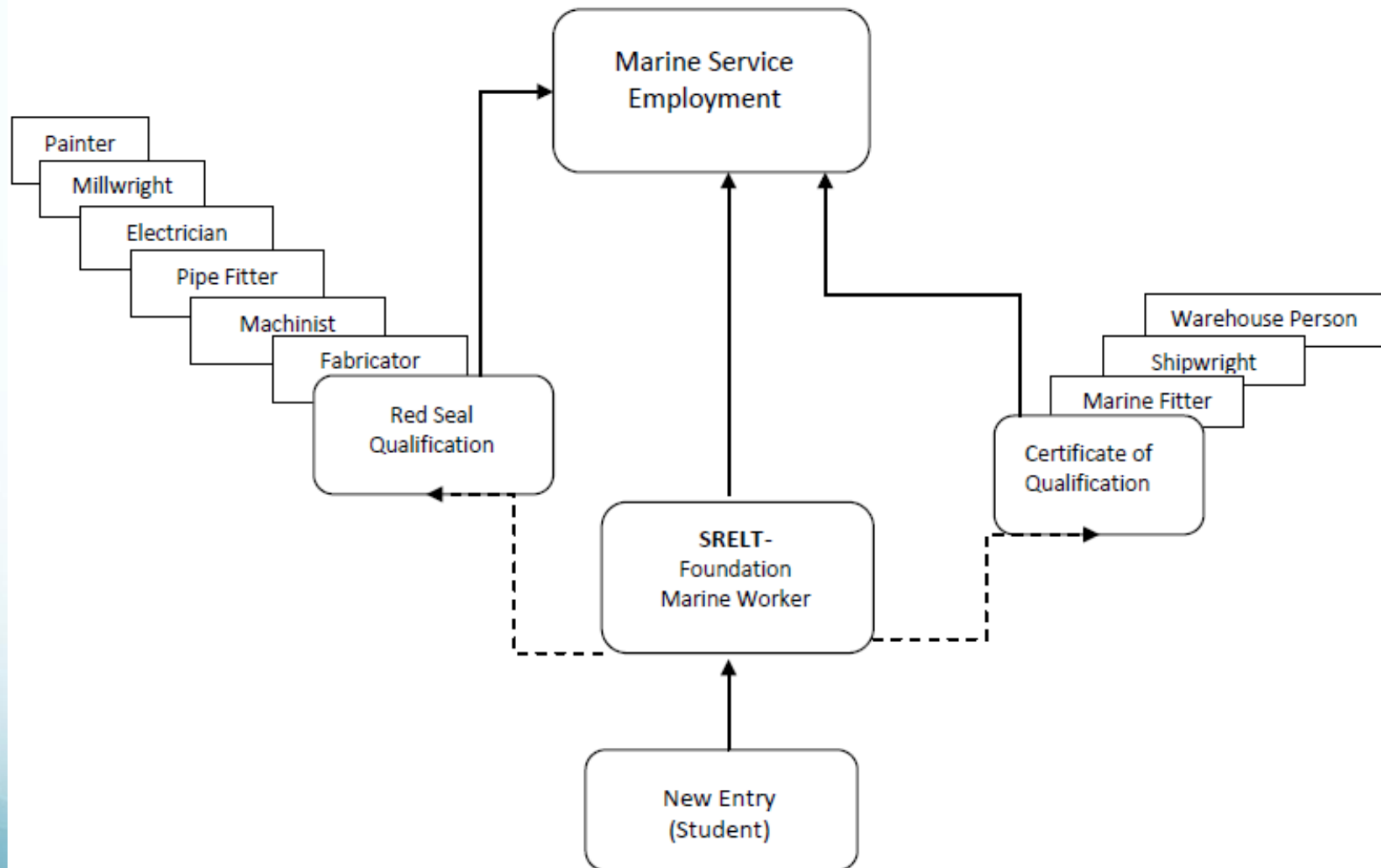
Dry Docking a Vessel
10hr

H

1. Explain the Dry Docking Process 10hr
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** Course Administration and Evaluation not included in time allocation. 352Hrs=11.7Wks*

Progression Model



PLANNING AND SCHEDULING COURSE

(Developed by Procept Associates)

- A 4 day course for project managers, planners, engineers, quality managers, material managers, and trades in marine industrial environment (focus on ship construction and ship repair)
- Learning Objectives
 - Creating effective project schedules
 - Implementing project schedule controls
 - Using earned value management
 - Evaluating project metrics and preparing project performance reports
 - Applying best practices in scheduling reports
- 9 Chapters and 2 Case Studies

ESTIMATING COURSE

(Developed by Richard Chappell Consulting)

- A 2 day course for project managers, engineers, quality managers, material managers, and those new to estimating in a marine industrial environment (focus on ship repair in private and public yards)
- Learning Objectives
 - Understanding of roles and responsibilities of an estimator
 - Understanding of estimating procedures and various estimating techniques
 - Understanding mandatory safety regulations and environmental precautions
 - Understanding various pricing solicitations and use of specifications and drawings
 - Estimating requirements for various types of work and ship repair
 - Production hour estimates and rates, material pricing, total estimation roll-ups

MARINE TERMINOLOGY COURSE

(Developed by Canadian Welding Bureau)

- A 2 day course for workers (and specialists/management) entering the shipbuilding and ship repair industry from other economic sectors
- Learning Objectives
 - Understand terms used in constructing and maintaining ships
 - Understand dimensional and structural terms
 - Understand terms relating to commercial and naval platforms
 - Understand and interpret marine technical illustrations
 - Understand terms around ship's fitted systems
 - Understand terms around generic layout and function of a shipyard
 - Understand safety terms and definitions as they apply to shipyard work activities
- 5 Chapters and supporting illustrations

INTERPERSONAL COMMUNICATIONS COURSE

(Developed by Stonecoast Group)

- Geared to the needs of existing and future leaders, managers and supervisors in the industrial marine environment.
- Participants in this 2 day course will be guided through a series of real-world exercises and strategies that will help them work through challenging situations with the goal of maintaining effective communication among co-workers, subordinates and more senior managers.
- Topics include building rapport, active listening, giving and receiving performance feedback and positive, constructive criticism. Acknowledgement, playback and communicating with different personalities will be examined and practiced. The use of communication technology including email and instant messaging is also addressed.

CONFLICT RESOLUTION COURSE

(Developed by Stonecoast Group)

- Geared to the needs of existing and future leaders, managers and supervisors in the industrial marine environment.
- Participants in this 2 day course will be guided through a series of real-world exercises and strategies that will help them work through challenging situations with the goal of successfully resolving conflict among co-workers, subordinates and more senior managers.
- Topics include understanding types of conflict, different conflict styles, the effective use of questions, reframing strategies and dealing with difficult negotiators.

COACHING AND MENTORING COURSE

(Developed by Stonecoast Group)

- Geared to the needs of existing and future leaders, managers and supervisors in the industrial marine environment.
- Participants in this two-day session will be guided through a series of real-world exercises and strategies that will help them work through challenging situations with the goal of identifying and responding appropriately to coachable opportunities.
- Topics include understanding the differences between coaching and mentoring, coaching styles, and the effectiveness of formal and informal coaching and mentoring.

QUESTIONS ?



IMTARC is funded by the following contributors:

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