

## WORLD CLASS SHIPBUILDER CURRICULUM

SUBJECT	ACADEMIC TERMS			
	1	2	3	4
<b>TECHNICAL MATHEMATICS</b>	TECHNICAL MATH I M111	TECHNICAL MATH II M112		
<b>DRAFTING, ENGINEERING AND DESIGN</b>	DRAFTING D111			MECHANICS M121
<b>MARINE ENGINEERING AND NAVAL ARCHITECTURE</b>	SHIP CONSTRUCTION I N111		SHIP CONSTRUCTION II N222	
<b>PHYSICAL SCIENCE</b>			PHYSICAL SCIENCE I P221	PHYSICAL SCIENCE II P222
<b>TECHNICAL COMMUNICATIONS</b>		TECHNICAL COMMUNICATIONS I C111		
<b>BUSINESS PROCESSES</b>		INTRODUCTION TO COMPUTERS C211	BUSINESS OPERATIONS AND LEADERSHIP B122	PROBLEM SOLVING B112

## TRADE RELATED EDUCATION CURRICULUM

**DIMENSIONAL CONTROL TECHNICIAN**  
Industrial Measurement  
Introduction to Pipefitting  
Blueprint Reading Fundamentals and Procedures  
Machinery Installation Theory

**ELECTRICIAN**  
DC Theory  
AC Theory  
Machines and Electromechanical Controls  
Static Controls  
Digital Electronics  
Programmable Logic Controllers

**HEATING & AIR CONDITIONING WORKER**  
All Electrical Theory Courses  
Refrigeration and Air Conditioning

**HEAVY METAL FABRICATOR**  
Hull Construction Theory I  
Hull Construction Theory II

**MACHINIST**  
Machinist Shop Theory  
Numerical Control Programming

**MILLWRIGHT**  
Machinist Shop Theory  
Hydraulics I (Introduction)

**NON-DESTRUCTIVE TESTER**  
DC Theory  
AC Theory  
NDT Theory

**OUTSIDE MACHINIST**  
Machinery Installation Theory  
Hydraulics I (Introduction)

**PAINTER-INSULATOR**  
Paint and Surface Preparation  
Blueprint Reading for Painters  
Theory of Insulation

**PIPEFITTER**  
Introduction to Pipefitting  
Blueprint Reading Fundamentals and Procedures  
Sketching and Bending Fundamentals  
Piping Systems

**RIGGER**  
Stagebuilding, Blocking, and Shoring Theory  
Lifting and Handling Equipment Theory  
Ventilation Theory

**SHEET METAL WORKER**  
Blueprint and Group Sheet Reading  
Materials, Machine Processes, and Tapping  
Sheet Metal Layout  
Advanced Print Reading

**SHIPFITTER**  
Hull Construction Theory I  
Hull Construction Theory II

**WELDER**  
Hull Construction Theory I  
Shielded Metal Arc Welding  
Gas-Metal Arc Welding  
Introduction to Non-Destructive Testing

**WELDING EQUIPMENT REPAIRER**  
Hull Construction Theory I  
All Electrical Theory Classes

## PRE-ADVANCED OPTIONAL CURRICULUM

SUBJECT	ACADEMIC SEMESTERS *		
	1	2	3
<b>GENERAL EDUCATION</b>	TNCC STUDENT ORIENTATION S100/SDV 100 (T) STRESS MANAGEMENT H215/HLT 295 (T)		
<b>MATHEMATICS</b>	PRECALCULUS I M163/MTH 163 (T)	PRECALCULUS II M164/MTH 164 (T)	CALCULUS I M173/MTH 173 (T)  OR APPLIED BUSINESS CALCULUS M270/MTH 270 (T)
<b>LABORATORY SCIENCE</b>		GENERAL COLLEGE PHYSICS I LAB P199/PHY 199 (T) GENERAL COLLEGE PHYSICS II LECTURE & LAB P202/PHY 202 (T)	
<b>ENGLISH</b>	ENGLISH COMPOSITION I E111/ENG 111 (T)		ENGLISH COMPOSITION II E112/ENG 112 (T)
<b>HISTORY</b>	U.S. HISTORY I H121/HIS 121 (T)		
<b>SOCIAL SCIENCE &amp; HUMANITIES</b>	PRINCIPLES OF ECONOMICS I E201/ECO 201 (T)		ETHICS P220/PHI 220 (T)
<b>BUSINESS PROCESSES</b>		SHIPBUILDING OPERATIONS O233	

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## ADVANCED OPTIONAL CURRICULA

<b>ENGINEERING TECHNOLOGY (Mechanical or Electrical)</b>						
SUBJECT	ACADEMIC SEMESTERS					
	4	5	6	7	8	9
<b>DRAFTING, ENGINEERING AND DESIGN</b>	PARAMETRIC SOLID MODELING I D241 / DRF 241 (T)	MATERIALS AND PROCESSES OF INDUSTRY M113/MEC113 (T)	MECHANICS II M132/MEC 132 (T)		SHIPBUILDING DESIGN PROJECT D243	
		MECHANICS I M131/MEC 131 (T)				
<b>MARINE ENGINEERING AND NAVAL ARCHITECTURE</b>			MARINE ENGINEERING N236	NAVAL ARCHITECTURE N237		
<b>LABORATORY SCIENCE</b>						COLLEGE CHEMISTRY I C221/CHM 111 (T)
<b>TECHNICAL COMMUNICATIONS</b>				TECHNICAL COMMUNICATIONS II C232	TECHNICAL COMMUNICATIONS III C243	
<b>ELECTRICAL AND ELECTRONICS TECHNOLOGY</b>		COMPUTER ELECTRONICS I E273/ETR 273 (T)	PROGRAMMABLE LOGIC CONTROLLERS X316	PRINCIPLES OF LASERS & FIBER OPTICS I E231/ETR 231 (T)		
		DIGITAL ELECTRONICS X315				

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<b>BUSINESS ADMINISTRATION</b>				
SUBJECT	ACADEMIC SEMESTERS			
	4	5	6	7
<b>SOCIAL SCIENCE</b>	PRINCIPLES OF ECONOMICS II E202/ECO 202 (T)	UNITED STATES HISTORY II H122/HIS 122 (T)		
<b>ACCOUNTING</b>		PRINCIPLES OF ACCOUNTING I A211/ACC 211 (T)	PRINCIPLES OF ACCOUNTING II A212/ACC 212 (T)	
<b>HUMANITIES</b>				SURVEY OF AMERICAN LITERATURE E241/ENG 241 (T)
<b>BUSINESS</b>	PRODUCTION PLANNING B215	TOTAL QUALITY MANAGEMENT B209/BUS 209 (T)	HIGH PERFORMANCE WORK TEAMS B117/BUS 117 (T)	PROBABILITY & STATISTICS FOR BUSINESS & ECONOMICS B216/BUS 216 (T)
<b>TECHNICAL COMMUNICATIONS</b>				TECHNICAL COMMUNICATIONS III C243

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## ENGINEERING (Mechanical or Electrical)

SUBJECT	ACADEMIC SEMESTERS *					
	4	5	6	7	8	9
ENGINEERING	INTRODUCTION TO ENGINEERING E120/EGR 120 (T)	ENGINEERING MECHANICS - STATICS E140/EGR 140 (T)	INTRODUCTION TO ENGINEERING METHODS E125/EGR 125 (T)	MECHANICS OF MATERIALS E246/EGR 246 (T)		ENGINEERING MECHANICS - DYNAMICS E245/EGR 245 (T)
		ENGINEERING GRAPHICS E110/EGR 110 (T)		MECHANICS OF MATERIALS LAB E247/EGR 247 (T)		OR FUNDAMENTALS OF COMPUTER ENGINEERING E270/EGR 270 (T)
MATHEMATICS	CALCULUS II M174/MTH 174 (T)	ORDINARY DIFFERENTIAL EQUATIONS M279/MTH 279 (T)	VECTOR CALCULUS M277/MTH 277 (T)			
MARINE ENGINEERING AND NAVAL ARCHITECTURE					INTRODUCTION TO MARINE ENGINEERING AND NAVAL ARCHITECTURE N250	SHIPBUILDING DESIGN PROJECT D243
LABORATORY SCIENCE			UNIVERSITY PHYSICS I LECTURE & LAB P241/PHY 241 (T)	UNIVERSITY PHYSICS II LECTURE & LAB P242/PHY 242 (T)	COLLEGE CHEMISTRY I C221/CHM 111 (T)	COLLEGE CHEMISTRY II C222/CHM 112 (T)
TECHNICAL COMMUNICATIONS	TECHNICAL COMMUNICATIONS II C232				TECHNICAL COMMUNICATIONS III C243	
HUMANITIES				SURVEY OF AMERICAN LITERATURE I E241/ENG 241 (T)		

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## MODELING AND SIMULATION ENGINEERING **(Proposed)**

SUBJECT	ACADEMIC SEMESTERS *					
	4	5	6	7	8	9
<b>ENGINEERING AND COMPUTER SCIENCE</b>	INTRODUCTION TO ENGINEERING E120/EGR 120 (T)		COMPUTER SCIENCE I C201/CSC 201 (T)	UNIX I I171/ITN 171 (T)	PROGRAMMING WITH C++ C210/CSC 210 (T)	
<b>MATHEMATICS</b>	CALCULUS II M174/MTH 174 (T)	ORDINARY DIFFERENTIAL EQUATIONS M279/MTH 279 (T)				
<b>MODELING &amp; SIMULATION</b>		INTRODUCTION TO MODELING & SIMULATION MSIM 201	DISCRETE EVENT SIMULATION MSIM 205			
<b>LABORATORY SCIENCE</b>	COLLEGE CHEMISTRY I C221/CHM 111 (T)	COLLEGE CHEMISTRY II C222/CHM 112 (T)		UNIVERSITY PHYSICS I LECTURE & LAB P241/PHY 241 (T)	UNIVERSITY PHYSICS II LECTURE & LAB P242/PHY 242 (T)	
<b>TECHNICAL COMMUNICATIONS</b>			TECHNICAL COMMUNICATIONS II C232			TECHNICAL COMMUNICATIONS III C243
<b>HUMANITIES</b>						SURVEY OF AMERICAN LITERATURE I E241/ENG 241 (T)

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