

MARINE TRANSPORTATION TECHNOLOGY MISSISSIPPI CURRICULUM FRAMEWORK

Marine Transportation (Program CIP: 49.0399)

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The Office of Curriculum and Instruction (OCI) was founded in 2013 under the Division of Workforce, Career, and Technical Education at the Mississippi Community College Board (MCCB). The office is funded through a partnership with The Mississippi Department of Education (MDE), who serves as Mississippi's fiscal agent for state and federal Career and Technical Education (CTE) Funds. The OCI is tasked with developing statewide CTE curriculum, programming, and professional development designed to meet the local and statewide economic demand.

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ADOPTION OF NATIONAL CERTIFICATION STANDARDS

The National Maritime Center is granted authority through federal mandates listed in the Code of Federal Regulation (CFR), NVIC, and Coast Guard Policy Letters. NMC is a headquarters unit under the United States Coast Guard who works under the auspices of the Department of Homeland Security.

The U.S. Coast Guard is one of the five armed forces of the United States and the only military organization within the Department of Homeland Security. Since 1790, the Coast Guard has preserved the nation's maritime interests around the world. The Coast Guard is a military force of maritime professionals that provide a presence along our rivers, in the ports, littoral regions and on the high seas. The Coast Guard focuses on maritime safety, security and environmental stewardship.

As a credentialing program, the Coast Guard staff ensures a safe, secure, economically viable and environmentally sound marine transportation system manned by qualified U.S. mariners. They accomplish their vision with leading edge technology, strengthened by continuous improvement and partnerships with stakeholders.

For more information on the United States Coast Guard National Maritime Center, please contact:

Commanding Officer
United States Coast Guard
National Maritime Center
100 Forbes Drive
Martinsburg, WV 25404-7120

<https://www.dco.uscg.mil/nmc/about/>

INDUSTRY JOB PROJECTION DATA

Marine Transportation Technology

The Marine Transportation curriculum requires moderate-term on-the-job training. There is expected to be 0.93% increase at the state level. Median annual income for this occupation is \$58,437.60 at the state level. A summary of occupational data from National Strategic Planning and Analysis Research Center (nSPARC) is displayed below:

Table 1: Education Level

Program Occupations	Education Level
Sailors and Marine Oilers	High School Diploma
Captains, Mates, and Pilots of Water Vessels	Postsecondary Career and Technical Award

Motorboat Operators	Postsecondary Career and Technical Award
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Table 2: Occupational Overview

	Region	State	United States
2016 Occupational Jobs	972	972	74,395
2026 Occupational Jobs	981	981	75,133
Total Change	9	9	738
Total % Change (%)	0.93%	0.93%	0.99%
2016 Median Hourly Earnings	\$28.10	\$28.10	\$25.88
2016 Median Annual Earnings	\$58,437.60	\$58,437.60	\$53,828.62
Annual Openings	1	1	74

Table 3: Occupational Breakdown

Description	2016 Jobs	2026 Jobs	Annual Openings	2016 Hourly Earnings	2016 Annual Earnings 2,080 Work Hours
Sailors and Marine Oilers	418	421	0	\$17.77	\$36,961.60
Captains, Mates, and Pilots of Water Vessels	548	554	1	\$38.03	\$79,102.40
Motorboat Operators	6	6	0	\$19.33	\$40,206.40
Total	972	981	1		

Table 4: Occupational Change

Description	Regional Change	Regional % Change	State % Change	National % Change
Sailors and Marine Oilers	3	0.72%	0.72%	0.82%
Captains, Mates, and Pilots of Water Vessels	6	1.09%	1.09%	1.19%
Motorboat Operators	0	0.00%	0.00%	0.41%

ARTICULATION

There is currently no secondary program in Marine Transportation Technology to articulate to this program.

TECHNICAL SKILLS ASSESSMENT

Colleges should report the following for students who complete the program with a career certificate, technical certificate, or an Associate of Applied Science Degrees for technical skills attainment.

ONLINE AND BLENDED LEARNING OPPORTUNITIES

Course content includes lecture and laboratory semester credit hours. Faculty members are encouraged to present lecture related content to students in an online or blended learning environment. Training related to online and blended learning will be available to faculty members through the MS Community College Board.

RESEARCH ABSTRACT

In the fall of 2019, the Office of Curriculum and Instruction (OCI) met with the different industry members who made up the advisory committees for the marine transportation program. An industry questionnaire was used to gather feedback concerning the trends and needs, both current and future of the field. Program faculty, administrators, and industry members were consulted regarding industry workforce needs and trends.

Industry advisory team members from the college involved with this program were asked to give input related to developing the curriculum framework. Specific comments related to occupation related skills needed in this program include problem solving, comprehension of technical skills, and knowledge of systems.

Included in this curriculum development is the sequence of courses required for this new programs of study.

REVISION HISTORY

2019- Office of Curriculum & Instruction, Mississippi Community College Board

PROGRAM DESCRIPTION

The Marine Transportation program is an Associate of Applied Science degree program designed to prepare students for a multitude of entry level, career opportunities in marine technology such as deckhand training. A deckhand carries out his or her duties under the direction and authority of the captain via the first officer and/or bosun. A deckhand's duties include keeping the vessel exterior and deck equipment clean and exquisitely maintained, assisting in watch keeping and navigational support, and docking procedures. Ultimately, safety, attitude, work ethic and an awareness of multiple topics from galley safety, lines and rigging, maintenance of equipment and personal wellness. Because of the training in this industry, skills acquired through this program offer unlimited employment opportunities.

The curriculum is designed as a stackable credential career-technical program. An Associate of Applied Science degree will be awarded at the culmination of satisfactory study of the required courses. Upon completion of the AAS degree, students may choose to transfer to a four-year university to continue their education.

SUGGESTED COURSE SEQUENCE

MARINE TRANSPORTATION ACCELERATED PATHWAY

Course Number	Course Name	Semester Credit Hours	SCH Breakdown		Total Contact Hours	Certification Information
			Lecture	Lab		
MTB 1113	Introduction to Deckhand Training	3	3	0	45	
MTB 1124	Basic Marine Safety	4	4	0	60	
MTB 1213	Galley and Food Handling	3	3	0	45	
	Technical Elective	5				
	TOTAL	15				

MARINE TRANSPORTATION CAREER CERTIFICATE REQUIRED COURSES (DECKHAND OPTION)

Course Number	Course Name	Semester Credit Hours	SCH Breakdown		Total Contact Hours	Certification Information
			Lecture	Lab		
MTB 1113	Introduction to Deckhand Training	3	3	0	45	
MTB 1124	Basic Marine Safety	4	4	0	60	
MTB 1213	Galley and Food Handling	3	3	0	45	
MTB 1224	Lines and Rigging I	4	4	0	60	
MTB 1234	Lines and Rigging II	4	4	0	60	
MTB 1244	Vessel Security	4	4	0	60	
MTB 2314	Internship in Deckhand Training I	4	4	0	60	
MTB 2324	Internship in Deckhand Training II	4	4	0	60	
	TOTAL	30				

MARINE TRANSPORTATION TECHNICAL CERTIFICATE REQUIRED COURSES (TANKERMAN OPTION)

Course Number	Course Name	Semester Credit Hours	SCH Breakdown		Total Contact Hours	Certification Information
			Lecture	Lab		
MTB 2213	Introduction to Tankerman Training	3	3	0	45	
MTB 2223	Cargo Systems	3	3	0	45	
MTB 2233	Loading Operations	3	3	0	45	
MTB 2243	Fire and Gas Safety	3	3	0	45	
MTB 2333	Internship in Tankerman Training	3	3	0	45	
	TOTAL	15				

GENERAL EDUCATION CORE COURSES

To receive the Associate of Applied Science degree, a student must complete all of the required coursework found in the Career Certificate option, Technical certificate option, and a minimum of 15 semester hours of General Education core. The courses in the General Education Core may be spaced out over the entire length of the program so that students complete some academic and Career Technical courses each semester or provided primarily within the last semester. Each community college will specify the actual courses that are required to meet the General Education Core Requirements for the Associate of Applied Science degree at their college. The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Section 9 Standard 3 of the *Principles of Accreditation: Foundations for Quality Enhancement*¹ describes the general education core.

Section 9 Standard 3:

3. The institution requires the successful completion of a general education component at the undergraduate level that
 - a) is based on a coherent rationale.
 - b) is a substantial component of each undergraduate degree program. For degree completion in associate programs, the component constitutes a minimum of 15 semester hours of the equivalent; for baccalaureate programs, a minimum of 30 semester hours or the equivalent.
 - c) ensures breadth of knowledge. These credit hours include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. These courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

<<<Add any additional general education standards as required for programmatic accreditation here and footnote below.>>>

General Education Courses

Course Number	Course Name	Semester Credit Hours	SCH Breakdown		Total Contact Hours	Contact Hour Breakdown		Certification Name
			Lecture	Lab		Lecture	Lab	
	Humanities/Fine Arts	3						
	Social/Behavioral Sciences	3						
	Math/Science	3						
	Academic electives	6						
	TOTAL	15						

¹ Southern Association of Colleges and Schools Commission on Colleges. (2017). *The Principles of Accreditation: Foundations for Quality Enhancement*. Retrieved from <http://www.sacscoc.org/2017ProposedPrinc/Proposed%20Principles%20Adopted%20by%20BOT.pdf>

MARINE TRANSPORTATION COURSES

Course Number	Course Name	Semester Credit Hours	SCH Breakdown		Total Contact Hours	Certification Information
			Lecture	Lab		
MTB1113	Introduction to Deckhand Training	3	3	0	45	
MTB 1124	Basic Marine Safety	4	4	0	60	
MTB 1213	Galley and Food Handling	3	3	0	45	
MTB 1224	Lines and Rigging I	4	4	0	60	
MTB 1234	Lines and Rigging II	4	4	0	60	
MTB 1244	Vessel Security	4	4	0	90	
MTB 2213	Introduction to Tankerman Training	3	3	0	45	
MTB 2223	Cargo Systems	3	3	0	45	
MTB 2233	Loading Operations	3	3	0	45	
MTB 2243	Fire and Gas Safety	3	3	0	45	
MTB 2314	Internship in Deckhand Training I	4	4	0	60	
MTB 2324	Internship in Deckhand Training II	4	4	0	60	
MTB 2333	Internship in Tankerman Training	3	3	0	45	

Course Number and Name: **MTB 1124** **Basic Marine Safety**

Description: This course will give students the basic marine safety procedures used by individuals in the deckhand field. The course provides various techniques to ensure that safety is always the number one priority of employees on the ship and/or boat.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
4	4	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Discuss emergency response and procedures
2. Discuss suspicious individuals, activities and methods for by-passing security and reporting procedures in accordance with the Vessel Security Plan
3. Discuss recognizing and detecting dangerous substances and devices including: weapons, suspicious objects, bombs and triggering devices
4. Discuss Emergency Response Procedures, including precautions needed upon the detection of a potential explosive device and individual crew duties as stated in the Vessel Security Plan
5. Discuss the “new normalcy” of operating procedures at MARSEC LEVEL 1
6. Review vessel specific security measures as outlined in the Vessel Security Plan for MARSEC LEVEL 1
7. Discuss additional security measures required at MARSEC LEVEL 2 and 3 as stated in the Vessel Security Plan
8. Discuss procedures used in security sweeps of boats and barges
9. Discuss proper screening methods and procedures
10. Review screening requirements at each MARSEC LEVEL as stated in the Vessel Security Plan
11. Discuss the use of navigational and safety equipment as security equipment

Course Number and Name: **MTB 1213 Galley and Food Handling**

Description: This course gives students knowledge of safety and wellness guidelines that are utilized in the galley (kitchen area) of the boat. The course will also provide students with several food handling techniques while handling food.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Identify symptoms and ways foodborne illness can be transmitted
2. Discuss HACCP Guidelines
3. Discuss food preparation, food storage, sanitation, and personal hygiene

Course Number and Name: **MTB 1224** **Lines and Rigging I**

Description: This course includes instruction and lab exercises related to motor mounting and alignment, key fasteners, and power transmission systems.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
4	4	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Show the different types of lines and describe their functions
2. Discuss hardware frequently encountered during line handling operations
3. Discuss common hazards that can arise when handling lines
4. Demonstrate the procedure for safely throwing a line
5. Describe how and when to inspect a line, and the signs of damage
6. Discuss the importance of the Pike Pole

Course Number and Name: **MTB 1234** **Lines and Rigging II**

Description: This course will give students a continuation of lines and rigging as they are used in deckhand training. This course will also serve as foundation for lines and rigging.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
4	4	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Show a capstan and discuss its purpose
2. Explain the importance of communication when using a capstan
3. Demonstrate hand signals encountered when using a capstan
4. Show how to handle a capstan line, including “taking wraps”
5. Discuss the importance of personal protective equipment
6. Describe the safe use of lines during a locking procedure
7. Explain the problems caused by “fouling” a line
8. Discuss the importance of positioning oneself safely during locking procedures
9. Discuss how many parts of line should be used during different steps in the locking procedure

Course Number and Name: **MTB 1244 Vessel Security**

Description: This course will provide students with federal and state guidelines that are relevant to vessels and deckhand training.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
4	4	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Describe and discuss the primary responsibilities of the Vessel Security Officer
2. Discuss the different MARSEC LEVELS and their relationship to the Homeland Security Advisory System
3. Discuss the designation of the Vessel Security Officer for each vessel as stated in the Vessel Security Plan
4. Discuss Sensitive Security Information regarding the Vessel Security Plan, radio communications, and reporting

Course Number and Name: **MTB 2213** **Introduction to Tankerman Training**

Description: This course will introduce students to the field of various topics involved in Tankerman Training. Some of the topics include career pathways, safety, payroll, and benefits. This course will serve as the orientation for the Tankerman program.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Identify career pathways, occupations, and labor market for marine transportation
2. Assess payroll and benefits for marine transportation
3. Discuss emergency response and procedures

Course Number and Name: MTB 2223 Cargo Systems

Description: This course will introduce students to all aspects of the Cargo Systems used in Tankerman Training. Some of the topics include various systems, dangerous liquids, cargo classification and the Chemical Data Guide.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Describe towboat terms
2. Discuss company's or vessel's Hazard Communication Plan
3. Discuss the different types of chemical cargoes your company or vessel(s) transport
4. Discuss and emphasize the hazards associated with the chemical cargoes your company or vessel(s) transport
5. Discuss and emphasize methods of reducing risks associated with hazardous cargoes
6. Identify the difference between Subchapter D and Subchapter O cargoes
7. Discuss the method your company or vessel(s) uses to designate regulated areas
8. Discuss the types of different chemicals (excluding cargo) that may be found aboard your barge(s). Be sure to discuss hazards associated with these chemicals
9. Discuss the location of required documents aboard your barge(s)
10. Discuss additional information resources available aboard your vessel(s)
11. Explain the concept of "tool tight"
12. Discuss the concept of fugitive emissions and the importance of preventative procedures used to eliminate them

Course Number and Name: **MTB 2233 Loading Operations**

Description: This course will introduce students to Loading Operations involved in Tankerman Training. Some of the topics include discharge operations, ballasting and deballasting operations and stripping procedures.

Hour Breakdown:

Semester Hours	Lecture	Lab	Clock Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Discuss operations connected with loading, discharging, and care in transit and handling cargo
2. Identify loading plans, stability, and stresses during cargo transfers and ballasting
3. Demonstrate an understanding of loading operations

Course Number and Name: **MTB 2243** **Fire and Gas Safety**

Description: This course will introduce students to the various aspects Fire and Gas Safety in Tankerman Training. Some of the topics include emergency procedures, pollution prevention, vapor control recovery, tank cleaning procedures and vessel response plans.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Discuss the location of required documents aboard your barge(s)
2. Discuss additional resources available aboard your vessel(s)
3. Discuss the types of fire hazards that exist on vessels
4. Identify some potential fuel sources for fire onboard
5. Discuss past ship board fires, how they were caused, where they started, the crew's reaction and how they were extinguished
6. Review various firefighting equipment and available systems on your company's vessels
7. Discuss the classification of your vessel(s) and the regulations the crew and vessel must comply with
8. Review the Fire Detection System in the engine room and throughout the boat, the location of alarm panels, the function of all systems, and their associated audible and visible alarms
9. Review the types of communication systems available (fixed or portable), the need for backup power independent of the boat's electrical system, and the associated uses during an emergency
10. Review the locations and use of a positive shut-off valve fitted on any fixed piping that supplies fuel directly to an engine or generator, in order to stop the flow of fuel in the event of fuel line failure
11. Discuss the difference between a portable fire extinguisher, a semi-portable, and a fixed suppression system
12. Review the fire extinguisher inspection policy for your vessel
13. Show examples and demonstrate the use of the following portable fire extinguishers
 - a. Class A – forced water extinguisher
 - b. Class BC – CO2 extinguisher
 - c. Combination Class ABC – Dry Chemical
 - d. Water Hose

- e. Type K, for Galley oil and grease fires
14. Discuss reasons to leave the area immediately when a fixed suppression system is activated
 15. Discuss the workings of any fixed suppression systems available aboard your vessel
 16. Review firefighting strategies, response and overhaul
 17. Discuss the fire triangle and elements found onboard
 - a. Review procedures regarding required information when reporting a fire
 - b. Suggest tasks that must be taken immediately upon notification of a fire onboard
 - c. Review indicators that signify signs of fire
 - d. Discuss exposure risks that must be taken into consideration during a fire
 18. Explain how removing an element from the fire triangle leads to extinguishing the fire
 19. Review classes of a fire
 20. Review fire prevention techniques (housekeeping, equipment maintenance, threat elimination and hotwork)
 21. Develop and evaluate fire drills and fire drill guidelines

Course Number and Name: **MTB 2314 Internship in Deckhand Training I**

Description: Students will serve as interns in Deckhand Training and will be given meaningful projects, responsibilities, work deadlines, and expectations similar to what they would expect as a full-time deckhand employee.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
4	4	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Demonstrate classroom content through hands-on projects related to expectations as full-time a deckhand employee

Course Number and Name: **MTB 2324 Internship in Deckhand Training II**

Description: Students will serve as interns in Deckhand Training and will be given meaningful projects, responsibilities, work deadlines, and expectations similar to what they would expect as a full-time deckhand employee.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
4	4	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Demonstrate classroom content through hands-on projects related to expectations as full-time a deckhand employee

Course Number and Name: **MTB 2333 Internship in Tankerman Training**

Description: Students will serve as interns in Tankerman Training and will be given meaningful projects, responsibilities, work deadlines, and expectations similar to what they would expect as a full-time Tankerman employee.

Hour Breakdown:

Semester Hours	Lecture	Lab	Contact Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Demonstrate classroom content through hands-on projects related to expectations as full-time a deckhand employee

APPENDIX A: RECOMMENDED TOOLS & EQUIPMENT

CAPITALIZED ITEMS

1. Emergency eyewash station (1)
2. Turn buckle
3. Cheetah pipe
4. Oil rig
5. Shackles and pin
6. Chain links
7. Deck crawler
8. Rope 2" x 600 PD-84
9. Timberheads
10. Winches
11. 2-Way Radios

NON-CAPITALIZED ITEMS

1. First aid kit (1)
2. Lock line
3. Barge winch
4. Needle guns
5. Hand tools
6. Living line
7. Sling
8. Pole Pike 18'
9. Vest Work WV 10RT
10. Vest Adult #586012
11. Buoy 30" Ring #266216
12. Bag Ring Buoy Rope I023 90'
13. Vest Work I223 3XL Type V
14. Rope 3/8X600' EA.
15. Line Leaving 1-3/4" X 600'
16. Clamp Cable 1"
17. Shackle Pin 1" SCR
18. Pipe Cheater 2" X 5'
19. Hula Hoop W/Chain 1"
20. Ratchet Angle Shank 1-3/8" X 24"
21. Wire Ratchet 1"X35'
22. Chain 6-Link
23. L162 Lifebuoy Light 320788
24. Ratchet Barge C-Bar 3'
25. Toothpick Steel 1" X 30"
26. Face Wire Puller
27. FID 18"
28. Grappling Hook GALV
29. Boots
30. Cavals
31. Buttons

APPENDIX B: CURRICULUM DEFINITIONS AND TERMS

- Course Name – A common name that will be used by all community colleges in reporting students
 - Course Abbreviation – A common abbreviation that will be used by all community and junior colleges in reporting students
- Classification – Courses may be classified as the following:
- a. Career Certificate Required Course – A required course for all students completing a career certificate.
 - b. Technical Certificate Required Course – A required course for all students completing a technical certificate.
 - c. Technical Elective – Elective courses that are available for colleges to offer to students.
- Description – A short narrative that includes the major purpose(s) of the
 - Prerequisites – A listing of any courses that must be taken prior to or on enrollment in the course
 - Corequisites – A listing of courses that may be taken while enrolled in the course
 - Student Learning Outcomes – A listing of the student outcomes (major concepts and performances) that will enable students to demonstrate mastery of these competencies
 - The following guidelines were used in developing the program(s) in this document and should be considered in compiling and revising course syllabi and daily lesson plans at the local level:
 - The content of the courses in this document reflects approximately 75% of the time allocated to each course. The remaining 25% of each course should be developed at the local district level and may reflect the following:
 - a. Additional competencies and objectives within the course related to topics not found in the state framework, including activities related to specific needs of industries in the community college district
 - b. Activities that develop a higher level of mastery on the existing competencies and suggested objectives
 - c. Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed or revised
 - d. Activities that include integration of academic and career–technical skills and course work, school-to-work transition activities, and articulation of secondary and postsecondary career–technical programs
 - e. Individualized learning activities, including work-site learning activities, to better prepare individuals in the courses for their chosen occupational areas
 - Sequencing of the course within a program is left to the discretion of the local college. Naturally, foundation courses related to topics such as safety, tool and equipment usage, and other fundamental skills should be taught first. Other courses related to specific skill areas and related academics, however, may be sequenced to take advantage of seasonal and climatic conditions, resources located outside of the school, and other factors. Programs that offer an Associate of Applied Science Degree must include all of the required Career Certificate courses, Technical Certificate courses **AND** a minimum of 15 semester hours of General Education Core Courses. The courses in the General Education Core may be spaced out over the entire length of the program so that students complete some academic and Career Technical courses each semester. Each community college specifies the actual courses that are required to meet the General Education Core Requirements for the Associate of Applied Science Degree at their college.

- In order to provide flexibility within the districts, individual courses within a framework may be customized by doing the following:
- Adding new student learning outcomes to complement the existing competencies and suggested objectives in the program framework.
- Revising or extending the student learning outcomes
- Adjusting the semester credit hours of a course to be up 1 hour or down 1 hour (after informing the Mississippi Community College Board [MCCB] of the change)

APPENDIX C: COURSE CROSSWALK

Marine Transportation Technology CIP: 49.0399-Marine Transportation		
Course Number	Course Title	Hours
MTB 1113	Introduction to Deckhand Training	3
MTB 1124	Basic Marine Safety	4
MTB 1213	Galley and Food Handling	3
MTB 1224	Lines and Rigging I	4
MTB 1234	Lines and Rigging II	4
MTB 1244	Vessel Security	4
MTB 2213	Introduction to Tankerman Training	3
MTB 2223	Cargo Systems	3
MTB 2233	Loading Operations	3
MTB 2243	Fire and Gas Safety	3
MTB 2314	Internship in Deckhand Training I	4
MTB 2324	Internship in Deckhand Training II	4
MTB 2333	Internship in Tankerman Training	3

APPENDIX D: RECOMMENDED TEXTBOOK LIST

Recommended Textbook List CIP: 49.0399 Marine Technology		
Book Title	Author(s)	ISBN
Deckhand Training Program	Hinds Community College	N/A