

Florida Department of Education
CURRICULUM FRAMEWORK

Program Title: COMMERCIAL FISHING
Program Type: Job Preparatory
Occupational Area: Industrial Education
Components: One Program with One Occupational Completion Point

	<u>Secondary</u>	<u>PSAV</u>
Program Numbers	8751200	I490303
CIP Number	0649.030300	0649.030300
Grade Level	9-12, 30, 31	30, 31
Standard Length	5 Credits	750 Hours
Certification	COMM FISH @7 G	COMM FISH @7 G
Facility Code	245	245
CSO	SkillsUSA, Inc.	SkillsUSA, Inc.
Co-op Method	Yes	Yes
Apprenticeship	No	No
Basic Skills		
Math		9
Language		9
Reading		9

I. **MAJOR CONCEPTS/CONTENT:** The purpose of this program is to prepare students for initial employment as an officer or fishing vessel captain (OES 77002) (SOC 53-5021.01).

The plan of instruction prepares individuals for crew duties on seagoing boats, barges and ships. Included are boat operation, fishing operations, cleaning and preservation, loading and unloading and emergency procedures.

The content should include, but not be limited to, communication skills, leadership skills, human relations and employability skills, safe and efficient work practices, crew duties on seagoing boats, trailers, and small ships. Included are vessel operation and maintenance, vessel navigation, vessel handling, shrimp and net fishing, pot and line fishing, and galley operation/food preparation.

Listed below are the courses that comprise this program when offered at the secondary level:

- 8751210 - Commercial Fishing 1
- 8751220 - Commercial Fishing 2
- 8751230 - Commercial Fishing 3
- 8751240 - Commercial Fishing 4
- 8751250 - Commercial Fishing 5

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the Fishing industry; planning, management, finance, technical and product skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

- II. **LABORATORY ACTIVITIES:** Laboratory and onboard activities are an integral part of this program and provide instruction in the safe and efficient operation of commercial watercraft and related systems. Emphasis is placed on vessel operations and fishing techniques.
- III. **SPECIAL NOTES:** SkillsUSA, Inc. is the appropriate Career Student Organization (CSO) for providing leadership training and for reinforcing specific career and technical skills. CSOs, when provided, shall be an integral part of the career and technical instructional program, and the activities of such organizations are defined as part of the curriculum in accordance with Rule 6A-6.065, F.A.C.

Cooperative training - OJT is appropriate for this program. Whenever cooperative training - OJT is offered, the following are required for each student: a training plan, signed by the student, teacher, and employer, which includes instructional objectives and a list of on-the-job and in-school learning experiences; a workstation that reflects equipment, skills and tasks that are relevant to the occupation which the student has chosen as a career goal. The student must receive compensation for work performed.

If this program is offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic-skills grade levels required for postsecondary adult vocational students to complete this program are: Mathematics 9.0, Language 9.0, Reading 9.0. These grade-level numbers correspond to grade-equivalent scores obtained on one of the state-designated basic-skills examinations. If a student does not meet the basic-skills level required for completion of the program, remediation should be provided concurrently through Vocational Preparatory Instruction (VPI). Please refer to the Rule for exemptions.

When a secondary student with a disability is enrolled in a vocational class with modifications to the curriculum framework, the particular outcomes and student performance standards that the student must master to earn credit must be specified on an individual basis. The job or jobs for which the student is being trained should be reflected in the student's desired postschool outcome statement on the Transition Individual Educational Plan (Transition IEP).

When this program is offered at the postsecondary level, it may be offered in courses. Vocational credit shall be awarded to the student on a transcript in accordance with Section 1001.44, F.S.

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Adult students with disabilities must self-identify and request such services. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

SCANS Competencies: Instructional strategies for this program must include methods that require students to identify, organize, and use resources appropriately; to work with each other cooperatively and productively; to acquire and use information; to understand social, organizational, and technological systems; and to work with a variety of tools and equipment. Instructional strategies must also incorporate the methods to improve students' personal qualities and high-order thinking skills.

IV. **INTENDED OUTCOMES:** After successfully completing the program, the student will be able to:

OCCUPATIONAL COMPLETION POINT - DATA CODE A

OFFICER OR FISHING VESSEL CAPTAIN - OES 77002, SOC 53-5021.01

- 01.0 Unlock and get a vessel underway.
- 02.0 Dock a vessel.
- 03.0 Operate a vessel at sea.
- 04.0 Maneuver around offshore structures.
- 05.0 Anchor vessel.
- 06.0 Manage and perform cargo-handling duties.
- 07.0 Perform shrimp boat deckhand duties.
- 08.0 Perform net fisher duties.
- 09.0 Perform pot fisher duties.
- 10.0 Perform line fisher duties.
- 11.0 Bring vessel into port.
- 12.0 Perform crew operational and maintenance duties aboard a vessel in port.
- 13.0 Prepare meals aboard vessel.
- 14.0 Plan and perform emergency procedures.
- 15.0 Demonstrate appropriate communication skills.
- 16.0 Demonstrate appropriate math skills.
- 17.0 Demonstrate appropriate understanding of basic science.
- 18.0 Demonstrate employability skills.
- 19.0 Demonstrate an understanding of entrepreneurship.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Program Title: Commercial Fishing
Postsecondary Number: I490303

OCCUPATIONAL COMPLETION POINT - DATA CODE A

OFFICER OR FISHING VESSEL CAPTAIN - OES 77002, SOC 53-5021.01

- 01.0 UNLOCK AND GET VESSEL UNDERWAY--The student will be able to:
- 01.01 Bleed air compressor of water.
 - 01.02 Check and maintain batteries.
 - 01.03 Measure fuel in day tank.
 - 01.04 Maintain proper level of coolant in expansion tank.
 - 01.05 Determine if all navigation lights are functioning.
 - 01.06 Tighten engine mounts.
 - 01.07 Inspect water level indicators for cleanliness.
 - 01.08 Test marine radio equipment.
 - 01.09 Inspect antenna for physical damage.
 - 01.10 Determine if hydraulic steering equipment is free of air and water.
 - 01.11 Inspect fire-fighting equipment for excessive wear, proper location, and prescribed type.
 - 01.12 Inspect buoyant apparatus for excessive wear, proper location and prescribed type.
 - 01.13 Determine that rudder-stuffing box is functioning properly.
 - 01.14 Tighten propeller stuffing box.
 - 01.15 Inspect vessel for fuel leakage.
 - 01.16 Prepare list of equipment to be checked for oil leakage.
 - 01.17 Determine if proper voltage is being generated.
 - 01.18 Maneuver vessel from berth into navigable waterway.
 - 01.19 Pump out bilges.
 - 01.20 Secure loose deck equipment.
 - 01.21 Secure watertight doors, hatches, vents and skylights.
- 02.0 DOCK A VESSEL--The student will be able to:
- 02.01 Assign crewmembers positions for mooring vessel.
 - 02.02 Cast off vessel's mooring lines while remaining on dock.
 - 02.03 Cast off vessel's mooring lines while remaining aboard vessel.
 - 02.04 Tie various knots used in maritime operations.
 - 02.05 Maneuver vessel to dock.
 - 02.06 Release towing gear aboard towing vessel and barges.
 - 02.07 Secure mooring lines to dock.
 - 02.08 Secure mooring lines to vessel.
 - 02.09 Secure engine room.
 - 02.10 Secure propeller shaft.
 - 02.11 Inspect engine room equipment for proper maintenance and safety.
 - 02.12 Correct nautical chart prior to departure.
 - 02.13 Prepare vessel to take on fuel and lube oil.
 - 02.14 Prepare to take on water aboard vessel.
 - 02.15 Splice eye into line.
- 03.0 OPERATE VESSEL AT SEA--The student will be able to:

- 03.01 Act as vessel's lookout.
 - 03.02 Determine if electrical connections and outlets are tight and dry.
 - 03.03 Determine if electrical outlets have proper voltage.
 - 03.04 Change air filters on engines.
 - 03.05 Change oil and fuel filters on engines.
 - 03.06 Change oil in engines.
 - 03.07 Demonstrate knowledge of the rules of the road in operating a vessel.
 - 03.08 Determine time of arrival when current effect is known.
 - 03.09 Determine time of arrival when current effect is unknown.
 - 03.10 Display day or night signals for different towing situations.
 - 03.11 Inspect heaving lines, mooring lines, and fixed and running rigging for excessive wear.
 - 03.12 Clean engine room and its equipment.
 - 03.13 Determine Greenwich Mean Time (GMT) by using vessel's chronometer.
 - 03.14 Determine position by using Omega navigation system or equipment.
 - 03.15 Steer a course by using the magnetic compass.
 - 03.16 Operate radar equipment.
 - 03.17 Interpret basic meteorological data.
 - 03.18 Determine "distance off" by using angular measurements.
 - 03.19 Establish a vessel's dead reckoning (DR) track.
 - 03.20 Determine position by means of celestial navigation.
 - 03.21 Plot position by using Loran and Loran overprint charts.
 - 03.22 Set sea watches.
 - 03.23 Chip and paint vessel.
- 04.0 MANEUVER AROUND OFFSHORE STRUCTURES--The student will be able to:
- 04.01 Assist personnel in boarding personnel basket.
 - 04.02 Maneuver vessel to discharge passengers.
 - 04.03 Maneuver vessel to discharge cargo.
 - 04.04 Secure hoses on board vessel.
 - 04.05 Secure lashings, hawsers, or mooring lines on board vessel.
- 05.0 ANCHOR VESSEL--The student will be able to:
- 05.01 Anchor vessel.
 - 05.02 Maneuver vessel to anchorage area.
 - 05.03 Anchor vessel by using anchor winch.
 - 05.04 Anchor vessel by using anchor windlass.
 - 05.05 Stack (tier) anchor chain in chain locker.
- 06.0 MANAGE AND PERFORM CARGO HANDLING DUTIES--The student will be able to:
- 06.01 Adjust vessel's mooring lines to allow for variations of tides and current.
 - 06.02 Determine if all cargo is aboard.
 - 06.03 Determine if all deck cargo is secured.
 - 06.04 Determine if vessel is loaded in compliance with stability laws.
 - 06.05 Discharge cargo by using bulk cargo system.
 - 06.06 Load cargo by using bulk cargo system.
 - 06.07 Prepare list of lost or damaged cargo.
- 07.0 PERFORM SHRIMP BOAT DECKHAND DUTIES--The student will be able to:

- 07.01 Stand lookout, steering, and engine room watches.
- 07.02 Attach nets, slings, hooks, and other lifting devices to cables, booms, and hoists.
- 07.03 Load equipment and supplies aboard vessel by hand or using hoisting equipment.
- 07.04 Signal other workers to move, hoist, and position loads.
- 07.05 Row boats and dinghies and operate skiffs to transport fishers, and to tow and position nets.
- 07.06 Attach accessories, such as floats, weights, and markers to nets and lines.
- 07.07 Pull and guide nets and lines onto vessel.
- 07.08 Remove shrimp from nets.
- 07.09 Sort and clean marine life and return undesirable and illegal catch to the sea.
- 07.10 Operate brine tank and refrigeration equipment.
- 07.11 Place catch in containers and store in hold and cover with salt and ice.
- 07.12 Wash decks, conveyors, knives, and other equipment, using brush, detergent, and water.
- 07.13 Lubricate, adjust, and make minor repairs to engines and equipment.

08.0 PERFORM NET FISHER DUTIES--The student will be able to:

- 08.01 Catch finfish, shellfish, and other marine life alone or as crew.
- 08.02 Use and operate equipment such as dip, diver, gill, hoop, lampara, pound, trap, reef, trammel, and travel nets.
- 08.03 Use and operate equipment such as purse seine, haul, drag, or beach seine.
- 08.04 Insert and attach hoops, rods, poles, ropes, floats, weights, beam runners, other boards, and cables to form, reinforce, position, set tow and anchor net.
- 08.05 Attach flags and lights to buoys to identify net location.
- 08.06 Put net into water and anchor or tow net according to kind of net used, location of fishing area, and method of fishing.
- 08.07 Haul net to boat or shore manually and using winch.
- 08.08 Empty catch from net, using dip net, brail bucket, hydraulic pump, and conveyor, and by lifting net, using block and tackle, and dumping catch.
- 08.09 Store catch in hold and containers, or transfer catch to base ship or bigger boat.
- 08.10 Ride in skiff and hold end of net as base ship discharges net to surround school of fish or other seafood.
- 08.11 Sort and clean fish.
- 08.12 Repair fishing nets and gear.
- 08.13 Act as lookout or observe instruments to sight schools of fish.

09.0 PERFORM POT FISHER DUTIES--The student will be able to:

- 09.01 Fish for marine life, including crab, eel, or lobster, using pots (cages with funnel-shaped net openings).
- 09.02 Tie marker float to line, attach line to pot, fasten bait inside pot, and lower pot into water.
- 09.03 Hook marker float with pole and pull up pot.

- 09.04 Reach through hinged door of pot to remove catch or dump catch on deck.
 - 09.05 Measure catch with fixed gauge to insure compliance with legal size.
 - 09.06 Place legal catch in container and toss illegal catch overboard.
 - 09.07 Place peg in hinge of claws to prevent lobsters in container from killing each other.
 - 09.08 Rig and lower dredge (rake scoop with bag net attached), drag dredge behind boat to gather marine life from water bottom, and hoist it to deck by hand using block and tackle.
- 10.0 PERFORM LINE FISHER DUTIES--The student will be able to:
- 10.01 Catch fish and other marine life with hooks and lines, working alone or as a member of crew.
 - 10.02 Lay out line and attach hooks, bait, sinkers, and various anchors, floats, and swivels, depending on quarry sought.
 - 10.03 Put line into water, and hold, anchor, or troll (tow) line to catch fish.
 - 10.04 Haul line onto boat deck by hand, reel, or synch, and remove catch.
 - 10.05 Store catch in hold or boxes and pack catch in ice.
 - 10.06 Hit fish with club to stun it before removing it from hook.
 - 10.07 Use gaff to assist in hauling fish from water.
 - 10.08 Slit fish, remove viscera, and wash cavity to clean fish for storage.
 - 10.09 Steer vessel in fishing area.
- 11.0 BRING VESSEL INTO PORT--The student will be able to:
- 11.01 Determine approximate position and hazardous conditions by using fathometer.
 - 11.02 Determine position by using radio direction finder (RDF).
 - 11.03 Determine vessel's course and position against dead reckoning plots.
- 12.0 PERFORM CREW OPERATIONAL AND MAINTENANCE DUTIES ABOARD VESSEL IN PORT--The student will be able to:
- 12.01 Arrange for dry-docking a vessel.
 - 12.02 Change brushes in auxiliary engines.
 - 12.03 Change lube oil filters on auxiliary engines.
 - 12.04 Change fuel filters on auxiliary engines.
 - 12.05 Clean electric motor.
 - 12.06 Prepare list of hoses, valves, connections, gaskets, and tanks needing repairs.
 - 12.07 Determine if const-a-voltage regulator is functioning properly.
 - 12.08 Determine if drive bolts on air compressors are excessively loose.
 - 12.09 Tighten panel box fittings to prevent vibration.
 - 12.10 Clean keel cool strainers.
 - 12.11 Clean oil coolers.
 - 12.12 Clean oil strainers in marine gears.
 - 12.13 Drain water out of fuel traps.
 - 12.14 Tighten fuel and oil line connections on engines.
 - 12.15 Inspect day tanks containing fuel for leaks.
 - 12.16 Lubricate deck and engine room equipment on a regular schedule.

- 12.17 Determine vessel's manning requirements.
- 12.18 Wash down vessel's superstructure and decks.
- 13.0 PREPARE MEALS ABOARD VESSEL--The student will be able to:
 - 13.01 Make yeast breads.
 - 13.02 Make pie crust.
 - 13.03 Make cream filling in pie.
 - 13.04 Make pancakes.
 - 13.05 Make corn bread.
 - 13.06 Make cakes.
 - 13.07 Make biscuits.
 - 13.08 Clean galley deck, woodwork, and cabinets.
 - 13.09 Wash dishes, glasses, flatware, trays, pots and pans.
 - 13.10 Cook vegetables by boiling, simmering and steaming.
 - 13.11 Cook meats, seafood, and fowl by frying.
 - 13.12 Cook meats, seafood, and fowl by stewing and braising.
 - 13.13 Cook meats, seafood, and fowl by broiling.
 - 13.14 Cook meats, seafood, and fowl by roasting or baking.
 - 13.15 Cook meats, seafood, and fowl by braising.
 - 13.16 Season and bread meats, seafood, and fowl for baking, roasting, broiling and frying.
 - 13.17 Cook eggs by frying and scrambling.
 - 13.18 Make gravies.
 - 13.19 Make coffee.
 - 13.20 Make salads.
 - 13.21 Prepare soup stock.
 - 13.22 Prepare sandwiches.
 - 13.23 Prepare dehydrated or concentrated foods.
 - 13.24 Make soup with stock, meats, vegetables, and seasonings, as required by recipe.
 - 13.25 Carve cooled meats.
 - 13.26 Cut, trim, and bone beef, lamb, pork, or fish into prescribed portions for steaks, chops, and fillets.
 - 13.27 Clean and care for equipment.
 - 13.28 Order food.
 - 13.29 Plan menu.
 - 13.30 Keep records for purchasing foods.
 - 13.31 Store food.
 - 13.32 Keep continuous inventory of food items.
- 14.0 PLAN AND PERFORM EMERGENCY PROCEDURES--The student will be able to:
 - 14.01 Act as lookout to keep person in sight who has been lost overboard.
 - 14.02 Administer first aid to prevent shock.
 - 14.03 Administer first aid to control bleeding.
 - 14.04 Administer CPR.
 - 14.05 Launch lifeboat and life raft.
 - 14.06 Close emergency fuel shutoff valves.
 - 14.07 Extinguish class A, B, and C type fires.
 - 14.08 Maneuver life raft or lifeboat away from vessel.
 - 14.09 Maneuver vessel to return to area in which person was lost overboard.
 - 14.10 Issue life preservers for use by passengers and crew.
 - 14.11 Secure engine room to prevent spread of fire.
 - 14.12 Send out distress signals.
 - 14.13 Sound abandon-ship alarm.
 - 14.14 Train crew to perform emergency procedures.

- 15.0 DEMONSTRATE APPROPRIATE COMMUNICATION SKILLS--The student will be able to:
- 15.01 Write logical and understandable statements, or phrases, to accurately fill out forms/invoices commonly used in business and industry.
 - 15.02 Read and understand graphs, charts, diagrams, and tables commonly used in this industry/occupation area.
 - 15.03 Read and follow written and oral instructions.
 - 15.04 Answer and ask questions coherently and concisely.
 - 15.05 Read critically by recognizing assumptions and implications and by evaluating ideas.
 - 15.06 Demonstrate appropriate telephone/communication skills.
- 16.0 DEMONSTRATE APPROPRIATE MATH SKILLS--The student will be able to:
- 16.01 Solve problems for volume, weight, area, circumference and perimeter measurements for rectangles, squares, and cylinders.
 - 16.02 Measure tolerance(s) on horizontal and vertical surfaces using millimeters, centimeters, feet and inches.
 - 16.03 Add, subtract, multiply and divide using fractions, decimals, and whole numbers.
 - 16.04 Determine the correct purchase price, including sales tax for a materials list containing a minimum of six items.
 - 16.05 Demonstrate an understanding of federal, state and local taxes and their computation.
- 17.0 DEMONSTRATE APPROPRIATE UNDERSTANDING OF BASIC SCIENCE--The student will be able to:
- 17.01 Understand molecular action as a result of temperature extremes, chemical reaction, and moisture content.
 - 17.02 Draw conclusions or make inferences from data.
 - 17.03 Identify health-related problems that may result from exposure to work related chemicals and hazardous materials, and know the proper precautions required for handling such materials.
 - 17.04 Understand pressure measurement in terms of P.S.I., inches of mercury, and K.P.A.
- 18.0 DEMONSTRATE EMPLOYABILITY SKILLS--The student will be able to:
- 18.01 Conduct a job search.
 - 18.02 Secure information about a job.
 - 18.03 Identify documents that may be required when applying for a job interview.
 - 18.04 Complete a job application form correctly.
 - 18.05 Demonstrate competence in job interview techniques.
 - 18.06 Identify or demonstrate appropriate responses to criticism from employer, supervisor or other employees.
 - 18.07 Identify acceptable work habits.
 - 18.08 Demonstrate knowledge of how to make appropriate job changes.
 - 18.09 Demonstrate acceptable employee health habits.
 - 18.10 Demonstrate knowledge of the "Florida Right-To-Know Law" as recorded in Florida Statutes Chapter 442.

19.0 DEMONSTRATE AN UNDERSTANDING OF ENTREPRENEURSHIP--The student will be able to:

- 19.01 Define entrepreneurship.
- 19.02 Describe the importance of entrepreneurship to the American economy.
- 19.03 List the advantages and disadvantages of business ownership.
- 19.04 Identify the risks involved in ownership of a business.
- 19.05 Identify the necessary personal characteristics of a successful entrepreneur.
- 19.06 Identify the business skills needed to operate a small business efficiently and effectively.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Title: Commercial Fishing 1
Course Number: 8751210
Course Credit: 1

COURSE DESCRIPTION: This course provides instruction in docking, starting, and operating a vessel at sea.

OCCUPATIONAL COMPLETION POINT - DATA CODE A

OFFICER OR FISHING VESSEL CAPTAIN - OES 77002, SOC 53-5021.01

01.0 UNLOCK AND GET VESSEL UNDERWAY--The student will be able to:

- 01.01 Bleed air compressor of water.
- 01.02 Check and maintain batteries.
- 01.03 Measure fuel in day tank.
- 01.04 Maintain proper level of coolant in expansion tank.
- 01.05 Determine if all navigation lights are functioning.
- 01.06 Tighten engine mounts.
- 01.07 Inspect water level indicators for cleanliness.
- 01.08 Test marine radio equipment.
- 01.09 Inspect antenna for physical damage.
- 01.10 Determine if hydraulic steering equipment is free of air and water.
- 01.11 Inspect fire-fighting equipment for excessive wear, proper location, and prescribed type.
- 01.12 Inspect buoyant apparatus for excessive wear, proper location and prescribed type.
- 01.13 Determine that rudder-stuffing box is functioning properly.
- 01.14 Tighten propeller stuffing box.
- 01.15 Inspect vessel for fuel leakage.
- 01.16 Prepare list of equipment to be checked for oil leakage.
- 01.17 Determine if proper voltage is being generated.
- 01.18 Maneuver vessel from berth into navigable waterway.
- 01.19 Pump out bilges.
- 01.20 Secure loose deck equipment.
- 01.21 Secure watertight doors, hatches, vents and skylights.

02.0 DOCK A VESSEL--The student will be able to:

- 02.01 Assign crewmembers positions for mooring vessel.
- 02.02 Cast off vessel's mooring lines while remaining on dock.
- 02.03 Cast off vessel's mooring lines while remaining aboard vessel.
- 02.04 Tie various knots used in maritime operations.
- 02.05 Maneuver vessel to dock.
- 02.06 Release towing gear aboard towing vessel and barges.
- 02.07 Secure mooring lines to dock.
- 02.08 Secure mooring lines to vessel.
- 02.09 Secure engine room.
- 02.10 Secure propeller shaft.
- 02.11 Inspect engine room equipment for proper maintenance and safety.
- 02.12 Correct nautical chart prior to departure.
- 02.13 Prepare vessel to take on fuel and lube oil.

- 02.14 Prepare to take on water aboard vessel.
- 02.15 Splice eye into line.

03.0 OPERATE VESSEL AT SEA--The student will be able to:

- 03.01 Act as vessel's lookout.
- 03.02 Determine if electrical connections and outlets are tight and dry.
- 03.03 Determine if electrical outlets have proper voltage.
- 03.04 Change air filters on engines.
- 03.05 Change oil and fuel filters on engines.
- 03.06 Change oil in engines.
- 03.07 Demonstrate knowledge of the rules of the road in operating a vessel.
- 03.08 Determine time of arrival when current effect is known.
- 03.09 Determine time of arrival when current effect is unknown.
- 03.10 Display day or night signals for different towing situations.
- 03.11 Inspect heaving lines, mooring lines, and fixed and running rigging for excessive wear.
- 03.12 Clean engine room and its equipment.
- 03.13 Determine Greenwich Mean Time (GMT) by using vessel's chronometer.
- 03.14 Determine position by using Omega navigation system or equipment.
- 03.15 Steer a course by using the magnetic compass.
- 03.16 Operate radar equipment.
- 03.17 Interpret basic meteorological data.
- 03.18 Determine "distance off" by using angular measurements.
- 03.19 Establish a vessel's dead reckoning (DR) track.
- 03.20 Determine position by means of celestial navigation.
- 03.21 Plot position by using Loran and Loran overprint charts.
- 03.22 Set sea watches.
- 03.23 Chip and paint vessel.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Title: Commercial Fishing 2
Course Number: 8751220
Course Credit: 1

COURSE DESCRIPTION: This course includes instruction in maneuvering, anchoring and handling cargo.

04.0 MANEUVER AROUND OFFSHORE STRUCTURES--The student will be able to:

- 04.01 Assist personnel in boarding personnel basket.
- 04.02 Maneuver vessel to discharge passengers.
- 04.03 Maneuver vessel to discharge cargo.
- 04.04 Secure hoses on board vessel.
- 04.05 Secure lashings, hawser, or mooring lines on board vessel.

05.0 ANCHOR VESSEL--The student will be able to:

- 05.01 Anchor vessel.
- 05.02 Maneuver vessel to anchorage area.
- 05.03 Anchor vessel by using anchor winch.
- 05.04 Anchor vessel by using anchor windlass.
- 05.05 Stack (tier) anchor chain in chain locker.

06.0 MANAGE AND PERFORM CARGO HANDLING DUTIES--The student will be able to:

- 06.01 Adjust vessel's mooring lines to allow for variations of tides and current.
- 06.02 Determine if all cargo is aboard.
- 06.03 Determine if all deck cargo is secured.
- 06.04 Determine if vessel is loaded in compliance with stability laws.
- 06.05 Discharge cargo by using bulk cargo system.
- 06.06 Load cargo by using bulk cargo system.
- 06.07 Prepare list of lost or damaged cargo.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Title: Commercial Fishing 3
Course Number: 8751230
Course Credit: 1

COURSE DESCRIPTION: This course includes instruction in shrimping, net fishing, pot fishing, and line fishing.

07.0 PERFORM SHRIMP BOAT DECKHAND DUTIES--The student will be able to:

- 07.01 Stand lookout, steering, and engine room watches.
- 07.02 Attach nets, slings, hooks, and other lifting devices to cables, booms, and hoists.
- 07.03 Load equipment and supplies aboard vessel by hand or using hoisting equipment.
- 07.04 Signal other workers to move, hoist, and position loads.
- 07.05 Row boats and dinghies and operate skiffs to transport fishers, and to tow and position nets.
- 07.06 Attach accessories, such as floats, weights, and markers to nets and lines.
- 07.07 Pull and guide nets and lines onto vessel.
- 07.08 Remove shrimp from nets.
- 07.09 Sort and clean marine life and return undesirable and illegal catch to the sea.
- 07.10 Operate brine tank and refrigeration equipment.
- 07.11 Place catch in containers and store in hold and cover with salt and ice.
- 07.12 Wash decks, conveyors, knives, and other equipment, using brush, detergent, and water.
- 07.13 Lubricate, adjust, and make minor repairs to engines and equipment.

08.0 PERFORM NET FISHER DUTIES--The student will be able to:

- 08.01 Catch finfish, shellfish, and other marine life alone or as crew.
- 08.02 Use and operate equipment such as dip, diver, gill, hoop, lampara, pound, trap, reef, trammel, and travel nets.
- 08.03 Use and operate equipment such as purse seine, haul, drag, or beach seine.
- 08.04 Insert and attach hoops, rods, poles, ropes, floats, weights, beam runners, other boards, and cables to form, reinforce, position, set tow and anchor net.
- 08.05 Attach flags and lights to buoys to identify net location.
- 08.06 Put net into water and anchor or tow net according to kind of net used, location of fishing area, and method of fishing.
- 08.07 Haul net to boat or shore manually and using winch.
- 08.08 Empty catch from net, using dip net, brail bucket, hydraulic pump, and conveyor, and by lifting net, using block and tackle, and dumping catch.
- 08.09 Store catch in hold and containers, or transfer catch to base ship or bigger boat.
- 08.10 Ride in skiff and hold end of net as base ship discharges net to surround school of fish or other seafood.
- 08.11 Sort and clean fish.

- 08.12 Repair fishing nets and gear.
- 08.13 Act as lookout or observe instruments to sight schools of fish.

09.0 PERFORM POT FISHER DUTIES--The student will be able to:

- 09.01 Fish for marine life, including crab, eel, or lobster, using pots (cages with funnel-shaped net openings).
- 09.02 Tie marker float to line, attach line to pot, fasten bait inside pot, and lower pot into water.
- 09.03 Hook marker float with pole and pull up pot.
- 09.04 Reach through hinged door of pot to remove catch or dump catch on deck.
- 09.05 Measure catch with fixed gauge to insure compliance with legal size.
- 09.06 Place legal catch in container and toss illegal catch overboard.
- 09.07 Place peg in hinge of claws to prevent lobsters in container from killing each other.
- 09.08 Rig and lower dredge (rake scoop with bag net attached), drag dredge behind boat to gather marine life from water bottom, and hoist it to deck by hand using block and tackle.

10.0 PERFORM LINE FISHER DUTIES--The student will be able to:

- 10.01 Catch fish and other marine life with hooks and lines, working alone or as a member of crew.
- 10.02 Lay out line and attach hooks, bait, sinkers, and various anchors, floats, and swivels, depending on quarry sought.
- 10.03 Put line into water, and hold, anchor, or troll (tow) line to catch fish.
- 10.04 Haul line onto boat deck by hand, reel, or synch, and remove catch.
- 10.05 Store catch in hold or boxes and pack catch in ice.
- 10.06 Hit fish with club to stun it before removing it from hook.
- 10.07 Use gaff to assist in hauling fish from water.
- 10.08 Slit fish, remove viscera, and wash cavity to clean fish for storage.
- 10.09 Steer vessel in fishing area.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Title: Commercial Fishing 4
Course Number: 8751240
Course Credit: 1

COURSE DESCRIPTION: This course includes instruction in bringing a vessel into port and performing maintenance duties.

11.0 BRING VESSEL INTO PORT--The student will be able to:

- 11.01 Determine approximate position and hazardous conditions by using fathometer.
- 11.02 Determine position by using radio direction finder (RDF).
- 11.03 Determine vessel's course and position against dead reckoning plots.

12.0 PERFORM CREW OPERATIONAL AND MAINTENANCE DUTIES ABOARD VESSEL IN PORT--The student will be able to:

- 12.01 Arrange for dry-docking a vessel.
- 12.02 Change brushes in auxiliary engines.
- 12.03 Change lube oil filters on auxiliary engines.
- 12.04 Change fuel filters on auxiliary engines.
- 12.05 Clean electric motor.
- 12.06 Prepare list of hoses, valves, connections, gaskets, and tanks needing repairs.
- 12.07 Determine if const-a-voltage regulator is functioning properly.
- 12.08 Determine if drive bolts on air compressors are excessively loose.
- 12.09 Tighten panel box fittings to prevent vibration.
- 12.10 Clean keel cool strainers.
- 12.11 Clean oil coolers.
- 12.12 Clean oil strainers in marine gears.
- 12.13 Drain water out of fuel traps.
- 12.14 Tighten fuel and oil line connections on engines.
- 12.15 Inspect day tanks containing fuel for leaks.
- 12.16 Lubricate deck and engine room equipment on a regular schedule.
- 12.17 Determine vessel's manning requirements.
- 12.18 Wash down vessel's superstructure and decks.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Title: Commercial Fishing 5
Course Number: 8751250
Course Credit: 1

COURSE DESCRIPTION: This course includes instruction in meal preparation, emergency procedures, and employability skills.

13.0 PREPARE MEALS ABOARD VESSEL--The student will be able to:

- 13.01 Make yeast breads.
- 13.02 Make pie crust.
- 13.03 Make cream filling in pie.
- 13.04 Make pancakes.
- 13.05 Make corn bread.
- 13.06 Make cakes.
- 13.07 Make biscuits.
- 13.08 Clean galley deck, woodwork, and cabinets.
- 13.09 Wash dishes, glasses, flatware, trays, pots and pans.
- 13.10 Cook vegetables by boiling, simmering and steaming.
- 13.11 Cook meats, seafood, and fowl by frying.
- 13.12 Cook meats, seafood, and fowl by stewing and braising.
- 13.13 Cook meats, seafood, and fowl by broiling.
- 13.14 Cook meats, seafood, and fowl by roasting or baking.
- 13.15 Cook meats, seafood, and fowl by braising.
- 13.16 Season and bread meats, seafood, and fowl for baking, roasting, broiling and frying.
- 13.17 Cook eggs by frying and scrambling.
- 13.18 Make gravies.
- 13.19 Make coffee.
- 13.20 Make salads.
- 13.21 Prepare soup stock.
- 13.22 Prepare sandwiches.
- 13.23 Prepare dehydrated or concentrated foods.
- 13.24 Make soup with stock, meats, vegetables, and seasonings, as required by recipe.
- 13.25 Carve cooled meats.
- 13.26 Cut, trim, and bone beef, lamb, pork, or fish into prescribed portions for steaks, chops, and fillets.
- 13.27 Clean and care for equipment.
- 13.28 Order food.
- 13.29 Plan menu.
- 13.30 Keep records for purchasing foods.
- 13.31 Store food.
- 13.32 Keep continuous inventory of food items.

14.0 PLAN AND PERFORM EMERGENCY PROCEDURES--The student will be able to:

- 14.01 Act as lookout to keep person in sight who has been lost overboard.
- 14.02 Administer first aid to prevent shock.
- 14.03 Administer first aid to control bleeding.
- 14.04 Administer CPR
- 14.05 Launch lifeboat and life raft.
- 14.06 Close emergency fuel shutoff valves.

- 14.07 Extinguish class A, B, and C type fires.
 - 14.08 Maneuver life raft or lifeboat away from vessel.
 - 14.09 Maneuver vessel to return to area in which person was lost overboard.
 - 14.10 Issue life preservers for use by passengers and crew.
 - 14.11 Secure engine room to prevent spread of fire.
 - 14.12 Send out distress signals.
 - 14.13 Sound abandon-ship alarm.
 - 14.14 Train crew to perform emergency procedures.
- 15.0 DEMONSTRATE APPROPRIATE COMMUNICATION SKILLS--The student will be able to:
- 15.01 Write logical and understandable statements, or phrases, to accurately fill out forms/invoices commonly used in business and industry.
 - 15.02 Read and understand graphs, charts, diagrams, and tables commonly used in this industry/occupation area.
 - 15.03 Read and follow written and oral instructions.
 - 15.04 Answer and ask questions coherently and concisely.
 - 15.05 Read critically by recognizing assumptions and implications and by evaluating ideas.
 - 15.06 Demonstrate appropriate telephone/communication skills.
- 16.0 DEMONSTRATE APPROPRIATE MATH SKILLS--The student will be able to:
- 16.01 Solve problems for volume, weight, area, circumference and perimeter measurements for rectangles, squares, and cylinders.
 - 16.02 Measure tolerance(s) on horizontal and vertical surfaces using millimeters, centimeters, feet and inches.
 - 16.03 Add, subtract, multiply and divide using fractions, decimals, and whole numbers.
 - 16.04 Determine the correct purchase price, to include sales tax for a materials list containing a minimum of six items.
 - 16.05 Demonstrate an understanding of federal, state and local taxes and their computation.
- 17.0 DEMONSTRATE APPROPRIATE UNDERSTANDING OF BASIC SCIENCE--The student will be able to:
- 17.01 Understand molecular action as a result of temperature extremes, chemical reaction, and moisture content.
 - 17.02 Draw conclusions or make inferences from data.
 - 17.03 Identify health-related problems that may result from exposure to work related chemicals and hazardous materials, and know the proper precautions required for handling such materials.
 - 17.04 Understand pressure measurement in terms of P.S.I., inches of mercury, and K.P.A.
- 18.0 DEMONSTRATE EMPLOYABILITY SKILLS--The student will be able to:
- 18.01 Conduct a job search.
 - 18.02 Secure information about a job.
 - 18.03 Identify documents that may be required when applying for a job interview.
 - 18.04 Complete a job application form correctly.
 - 18.05 Demonstrate competence in job interview techniques.

- 18.06 Identify or demonstrate appropriate responses to criticism from employer, supervisor or other employees.
 - 18.07 Identify acceptable work habits.
 - 18.08 Demonstrate knowledge of how to make appropriate job changes.
 - 18.09 Demonstrate acceptable employee health habits.
 - 18.10 Demonstrate knowledge of the "Florida Right-To-Know Law" as recorded in Florida Statutes Chapter 442.
- 19.0 DEMONSTRATE AN UNDERSTANDING OF ENTREPRENEURSHIP--The student will be able to:
- 19.01 Define entrepreneurship.
 - 19.02 Describe the importance of entrepreneurship to the American economy.
 - 19.03 List the advantages and disadvantages of business ownership.
 - 19.04 Identify the risks involved in ownership of a business.
 - 19.05 Identify the necessary personal characteristics of a successful entrepreneur.
 - 19.06 Identify the business skills needed to operate a small business efficiently and effectively.