

Meat Merchandising Technology

Program CIP: 12.0506 –Meat Cutting/ Meat Cutter

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Division of Workforce, Career, and Technical Education
3825 Ridgewood Road
Jackson, MS 39211
Phone: 601-432-6155
Email: curriculum@mccb.edu

FACULTY WRITING TEAM MEMBERS

Chad Davis, Meat Merchandising, Instructor
Hinds Community College, Jackson, MS

ADMINISTRATOR WRITING TEAM MEMBERS

Cindy West, Career & Technical Assistant Dean,
Hinds Community College, Jackson, MS

BUSINESS AND INDUSTRY CONTRIBUTING TEAM MEMBERS

Dustin Peden Sam's Club Madison, MS*
Chris Vencill Sam's Club Madison, MS*
William Allen Country Meat Packers Raymond, MS*

OFFICE OF CURRICULUM AND INSTRUCTION TEAM MEMBERS

Dr. Angela Bryan, Director of Curriculum and Instruction, Mississippi Community College
Board LaToya Sterling, Curriculum Specialist, Office of Curriculum and Instruction,
Mississippi Community College Board
Dr. Teresa Barnes, Curriculum Specialist, Office of Curriculum and Instruction,
Mississippi Community College Board

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

Upon further research, there are no national certification standards that are available for adoption at this time. The Office of Curriculum and Instruction will continue working with industry members to ensure the curriculum document is rigorous enough for industry standards.

INDUSTRY JOB PROJECTION DATA

The banking and financial support services' occupations require an education level of short-term on-the-job training or work experience in a related field. There is expected to be a 10.87% increase in occupational demand at the regional level and 10.77% increase at the state level. Median annual income for this occupation is \$27,145.63 at the state level. A summary of occupational data from the State Workforce Investment Board Data Center is displayed below:

Table 1: Education Level

Program Occupations	Education Level
Butchers and Meat Cutters	Long-Term on-the- job training
Slaughterers and Meat Packers	Moderate-term on- the- job training

Table 2: Occupational Overview

	Region	State	United States
2010 Occupational Jobs	4835	5009	214420
2020 Occupational Jobs	5587	5788	219652
Total Change	752	779	5442
Total % Change	15.55%	15.55%	2.54%
2010 Median Hourly Earnings	\$10.77	\$11.03	\$12.84
2010 Median Annual Earnings	\$22,391.20	\$22,946.56	\$26,701.53
Annual Openings	75	77	544

Table 3: Occupational Breakdown

Description	2010 Jobs	2020 Jobs	Annual Openings	2010 Hourly Earnings	2010 Annual Earnings 2,080 Work Hours
Butchers and Meat Cutters	907	982	7	\$12.10	\$25,168.00
Slaughterers and Meat Packers	3928	4605	67	\$9.43	\$19,614.40
TOTAL	4835	5587	75	\$10.77	\$22,391.20

Table 4: Occupational Change

Description	Regional Change	Regional % Change	State % Change	National % Change
Butchers and Meat Cutters	75	8.27%	9.12%	1.24%
Slaughterers and Meat Packers	677	17.24%	17.09%	4.39%

ARTICULATION

SEC Program	PS Program	PS Courses
Food Products (Meats) (CIP 01.0401)	Meat Merchandising Technology (CIP 12.0506)	MQT 1114 Fundamentals of Meat Merchandising

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. To use the approved Alternate Assessment for the following programs of study, colleges should provide a Letter of Notification to the Director of Career Technical Education at the MS Community College Board. Please see the following link for further instructions: <http://www.mccb.edu/wkfEdu/CTDefault.aspx>.

CIP Code	Program of Study	
12.0506	Meat Cutting/ Meat Cutter	
Level	Standard Assessment	Alternate Assessment
Technical/AAS	MS-CPAS-2 Postsecondary Meat Merchandising Technology	No Alternate Assessment identified at this time.

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.

INSTRUCTIONAL STRATEGIES

Instructional strategies for faculty members implementing the curriculum can be found through the Office of Curriculum and Instruction's professional development.

ASSESSMENT STRATEGIES

The Office of Curriculum and Instruction's professional development offer assessment strategies to faculty members implementing the curriculum. Additionally, standards were included in course content when appropriate.

RESEARCH ABSTRACT

In the summer of 2016, the Office of Curriculum and Instruction (OCI) met with the different industry members who made up the advisory committees for the Meat Merchandising Technology program. An industry questionnaire was used to gather feedback concerning the trends and needs, both current and future, of their 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 changes to be made to the curriculum framework. Specific comments related to soft skills needed in this program include having a positive attitude, being at work every day and on time, and having reading and writing skills to complete work orders and other forms. Occupation-specific skills stated include knowing how to communicate with the customers, basic math skills, troubleshooting with customer concerns, and understanding the importance of confidentiality.

In this revision the curriculum writing team approved a prefix change for the curriculum from MTV to MQT.

REVISION HISTORY:

2010, Revised, Research and Curriculum Unit, Mississippi State University

2017, Revised, Office of Curriculum and Instruction, Mississippi Community College Board

PROGRAM DESCRIPTION

The Meat Merchandising Technology program is designed to prepare the student for entry-level employment in the various related phases of processing, marketing, and merchandising of meats; catering, food preparation; fork lift driving; and value-added products. Students are given an opportunity to master the skills necessary for success in meat merchandising, which includes slaughtering, chilling, aging, quartering, and cutting and/or inspecting pork, beef, lamb, poultry, goats, wild game, and fish.

Mastery of the competencies listed in the Food Safety course will prepare the student to take the National Restaurant Association's ServSafe exam to become ServSafe Food Safety certified.

Industry standards referenced are based on the National Restaurant Association's *ServSafe Certification*.

SUGGESTED COURSE SEQUENCE

Accelerated Integrated Career Pathway

			SCH Breakdown			Contact Hour Breakdown		Certification Information
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Total Contact Hours	Lecture	Lab	Certification Name
MQT 1114	Fundamentals of Meat Merchandising	4	0	8	120			
MQT 1214	Identification of Wholesale and Retail Cuts	4	0	8	120			
	Instructor Approved Technical Electives	7						
	TOTAL	15						

Career Certificate Required Courses

			SCH Breakdown			Contact Hour Breakdown		Certification Information
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Total Contact Hours	Lecture	Lab	Certification Name
MQT 1114	Fundamentals of Meat Merchandising	4	0	8	120			
MQT 1214	Identification of Wholesale and Retail Cuts	4	0	8	120			
MQT 1224	Preparation of Wholesale and Retail Cuts	4	0	8	120			
MQT 1234	Merchandising of Poultry, Fish, Seafood, and Smoked Meats	4	0	8	120			
MQT 1314	Display Pricing and Marketing Techniques I	4	0	8	120			
MQT 1414	Advanced Meat Merchandising I	4	0	8	120			
MQT 1522	Food Safety	2	0	8	120			
	Instructor Approved Technical Electives	4						
	TOTAL	30						

Technical Certificate Required Courses

			SCH Breakdown			Contact Hour Breakdown		Certification Information
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Total Contact Hours	Lecture	Lab	Certification Name
MQT 1514	Catering, Food Preparation, and Value-Added Products	4	0	8	120			
MQT 1324	Display Pricing and Marketing Techniques II	4	0	8	120			
MQT 1424	Advanced Meat Merchandising II	4	0	8	120			
	Instructor Approved Technical Elective	3						
	TOTAL	15						

General Education Core Courses – Meat Merchandising

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 (SACS) Commission on Colleges Standard 2.7.3 from the Principles of Accreditation: Foundations for Quality Enhancement¹ describes the general education core.

Section 2.7.3 In each undergraduate degree program, the institution requires the successful completion of a general education component at the collegiate level that (1) is substantial component of each undergraduate degree, (2) ensures breadth of knowledge, and (3) is based on a coherent rationale. For degree completion in associate programs, the component constitutes a minimum of 15 semester hours or the equivalent. These credit hours are to be drawn from and include at least one course from the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. The courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

General Education Courses

			SCH Breakdown			Contact Hour Breakdown		Certification Information
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Total Contact Hours	Lecture	Lab	Certification Name
	Humanities/Fine Arts	3						
	Social /Behavioral Science	3						
	Natural Science/ Mathematics	3						
	Academic electives per local college requirement	6						
	TOTAL	15						

¹

Southern Association of Colleges and Schools Commission on Colleges. (2012). *The principles of accreditation: Foundations for quality enhancement*. Retrieved from <http://www.sacscoc.org/pdf/2012PrinciplesOfAccreditation.pdf>

Electives

			SCH Breakdown				Contact Hour Breakdown		
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Externship	Total Contact Hours	Lecture	Lab	Externship
WBL191 (1-3)	Work-Based Learning I	1-3							
WBL 193(1-3)	Work-Based Learning II	1-3							
WBL 291 (1-3)	Work-Based Learning III	1-3							
WBL 292 (1-3)	Work-Based Learning IV	1-3							
WBL 293 (1-3)	Work-Based Learning V	1-3							
	All other technical electives approved by instructor per local community college								

Meat Merchandising Technology Courses

Course Number and Name: **MQT 1114** **Fundamentals of Meat Merchandising**

Description: This course covers the basic fundamentals of meat merchandising including career opportunities, safety requirements, sanitation, equipment and its maintenance, and government regulations.

Hour Breakdown:	Semester Credit Hours	Lecture	Lab	Contact Hours
	4	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Discuss career opportunities in meat cutting, packing, and processing professions.
 - a. Define the job of meat cutter.
 - b. Discuss the various jobs available in the meat cutting, packing, and processing professions.
2. Explain general meat laboratory safety requirements.
 - a. List and practice safety rules and procedures.
 - b. Explain the importance of safety in using the tools and equipment involved in meat merchandising.
3. Discuss sanitation as it applies to a meat cutting facility.
 - a. Describe sanitary operations of a meat cutting facility.
 - b. Describe state and federal inspection guidelines as they apply to meat processing facilities.
 - c. Explain the term microorganisms.
 - d. Describe how bacteria and other microorganisms can multiply and cause spoilage of fresh, vacuum packed, and frozen meat.
 - e. List the equipment in a cutting room that needs cleaning every day.
 - f. Define the term disinfectant.
 - g. Describe the benefits of a rail system.
 - h. Select and use proper aprons, gloves, hard hats, eye protection, hair nets, rubber boots, and other equipment.
 - i. Disinfect aprons and rubber boots after each use.
4. Identify and properly use equipment for meat cutting, packing, and processing.
 - a. Identify equipment used in a meat laboratory including a band saw, grinder, mixer, tenderizer, slicing machine, stuffer, pickle pump, and vacuum tumbler.
 - b. Assemble and disassemble equipment including band saw, grinder, mixer, tenderizer, slicing machine, stuffer, and pickle pump.
 - c. Identify and use other meat cutting equipment including knives, knife sharpener, steel and hone, stockinette, dead lock and tag, computerized scales and weighing items, vacuum packer, salinometer, squeegee equipment, patty machine, heat seal, cooler, freezer, rail system, tables, immobilizer, hoist, dehairing machine, skinning knife, and carcass split saw.
 - d. Use sterilizer for knives and steel.
5. Demonstrate equipment maintenance used in a meat cutting facility,
 - a. Maintain sharp knives including boning and butcher.
 - b. Perform equipment and maintenance procedures for grinder, slicer, band saw, and all other equipment in the meat laboratory.
 - c. Use proper disinfection procedures for cleaning tables after use.
 - d. Demonstrate proper hand-washing procedure after working in the meat cutting laboratory.

6. Maintain a safe and sanitary facility.
 - a. Wash and disinfect walls and floors.
 - b. Maintain a safe environment by wiping
7. Explain the standards by which red meat and poultry are graded.
 - a. List the factors used to quality grade beef, pork, lamb, and poultry.
 - b. List the quality and yield grades of beef and lamb carcasses.
 - c. List the grades of pork and poultry carcasses.
 - d. Define the term marbling, and list the degrees of marbling for beef carcasses.
 - e. Explain how age of the animal can affect beef carcass grades.
 - f. Explain how grades may affect meat prices.
 - g. Discuss at least three ways in which finish (fat) influences grade.
 - h. Explain the basic divisions for current grades and their relationship to wholesale and retail cuts.
 - i. Explain how the determination of beef and pork grades differs.
 - j. Grade several beef and pork carcasses at the cold storage meat plant.
8. Explain at what temperatures and times to properly store various meat cuts.
 - a. List the recommended storage times for frozen cuts of beef, pork, lamb, and poultry.
 - b. List the average shelf life of fresh cuts of beef, pork, lamb, and poultry.
 - c. Explain the steps and procedures most used by retail meat markets to extend the shelf life of fresh meats.
 - d. Describe how frozen meats are quick frozen and why this is done.
 - e. Discuss what temperatures are used to quick-freeze meat.
 - f. Cite the recommended temperatures for the display case, cooler, and storage freezer.
 - g. Explain how meat is rotated to make proper use of storage time and shelf time.
 - h. Explain why red meat and poultry are not stored together in the same cooler areas.
 - i. Explain why frozen beef can be stored for longer periods of time than frozen pork without appreciable loss of quality.
 - j. Demonstrate the ability to properly rotate, store, and merchandise various cuts of red meat and poultry.
9. Explain government regulations as they apply to meat merchandising.
 - a. Explain which government agency is in charge of checking sanitation in retail meat markets.
 - b. Explain which government agency is in charge of checking slaughtering and processing red meat and poultry plants.
 - c. Discuss the importance of waiting periods for various medications prior to slaughter.
 - d. Explain the importance of verification of animal health prior to slaughter.
 - e. Explain how labeling of red meat items is controlled.
 - f. Define meat inspection, lay inspector, and vet inspector.
 - g. Explain how inspection helps protect the health of meat consumers.
 - h. Describe methods of disposing of offal.
10. Describe sanitary operations of meat cutting facilities outlined in Hazards Analysis Critical Control Point (HACCP) standards.
 - a. Discuss the major elements related to food safety inspection service outlined in the HACCP proposal.
 - b. Explain Sanitation Standing Operating Procedures (SSOP) conducted daily, before, and during operations sufficient to prevent direct contamination or adulteration of product.
 - c. Discuss how to develop an HACCP plan including monitoring requirements and corrective action.
 - d. Discuss the difference between ante mortem and postmortem inspection.
 - e. Discuss federal and state regulations for inspection including exemptions.

Course Number and Name: MQT 1214 Identification of Wholesale and Retail Cuts

Description: This course consists of the identification of wholesale and retail cuts of meat. The course also includes preparation and serving of meat products. Background information is provided on dressing, chilling, storage, and sanitation, inspection, grading, curing, and smoking procedures for different types of meat products.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Identify cuts of beef, pork, goats, wild game, and lamb.
 - a. List the lean wholesale cuts of beef, pork, goats, and lamb and the basic retail cuts obtained from each.
 - b. List the various cuts obtained from wild game.
 - c. Explain the terms family pack, individually quick frozen (IQF), vacuum pack, and tray pack.
 - d. Explain how to identify cuts of red meat by color, shape of bone, and muscle.
 - e. Discuss the three basic rules of meat cutting.
 - f. Explain how religious or ethnic requirements may influence choice of meat cuts.
 - g. Properly identify retail cuts of red meat and poultry for proper labeling after packaging.
 - h. Explain how to identify boneless retail cuts.
 - i. Discuss the basic thumb rules for breaking red meat animal and poultry carcasses into primal and sub-primal cuts.
 - j. Demonstrate the ability to identify and break down boxed primal cuts of beef and pork.
2. Prepare and serve meat products.
 - a. List and describe the dry heat methods of cookery.
 - b. List and describe the moist heat methods of cookery.
 - c. Explain which methods of cookery are recommended for retail beef cuts from the loin and rib and why.
 - d. Explain which methods of cookery are recommended for retail cuts of beef from the chuck and round and why.
 - e. Discuss the recommended cookery methods for various retail cuts of pork.
 - f. Describe how to measure the internal temperature of meat while it is cooking.
 - g. List the desired final internal temperatures for beef cooked rare, medium, and well done.
 - h. Explain to what degree of doneness to cook pork, chicken, goat, wild game, and lamb.
3. Explain the dressing and chilling procedures for red meat.
 - a. Describe the steps and procedures used in dressing beef, pork, goat, wild game, and lamb.
 - b. Define the term dressing percent and list the average dressing percentages for beef, hogs, goats, wild game, and lambs.
 - c. Explain what is meant by cooler shrink and what it averages in red meat animals.
 - d. List the proper cooler temperatures and chill times for red meat animals.
 - e. Define the term byproducts.
 - f. List some of the more important byproducts obtained when slaughtering red meat animals.
 - g. Demonstrate the ability to properly dress red meat animals.
4. Explain the procedures for curing and smoking different types of meat products.
 - a. List and describe three methods of curing meat.
 - b. Differentiate between stick pumping and arterial pumping and describe the difference in equipment used for each.

- c. Define the terms dry cure and country cure.
- d. Explain which type of wood is recommended for smoking meats.
- e. Give the thumb rules for days of curing time per pound for hams and bacon.
- f. Cite the smokehouse temperatures and internal temperatures for smoking country cured hams, pumped hams, bacon, and smoked sausage.
- g. Explain what constitutes a fully cooked ham.
- h. Demonstrate the ability to cure and smoke different meat items.

Course Number and Name: **MQT 1224 Preparation of Wholesale and Retail Cuts**

Description: This course is the study of breaking carcasses into wholesale boxed cuts of beef, pork, and lamb; preparing basic retail cuts from wholesale boxed cuts; boning procedures; and packaging.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	0	8	120

Prerequisite: **None**

Student Learning Outcomes:

1. Fabricate beef, pork, and lamb carcasses into wholesale box cuts.
 - a. Select appropriate knives for specific merchandising jobs.
 - b. Demonstrate proper safety methods while breaking meat.
 - c. Demonstrate proper sanitation and personal hygiene while processing meat.
 - d. Demonstrate the proper procedures for breaking beef, pork, and lamb carcasses into primal wholesale cuts.
 - e. Identify the breaking points for carcass fabrication into primal and sub-primal cuts.
 - f. Identify all primal and sub-primal cuts as they are removed from the carcasses.
2. Prepare the basic retail cuts from wholesale boxed cuts of beef, pork, and lamb.
 - a. Identify beef, pork, and lamb retail cuts using the most commonly used name.
 - b. List retail cuts of beef, pork, and lamb.
 - c. List retail cuts that come from each of the wholesale primal cuts.
 - d. Demonstrate the ability to tray retail cuts of beef, pork, and lamb.
 - e. Demonstrate the ability to tray retail cuts for specials and sales.
3. Demonstrate proper boning procedures for maximum profit.
 - a. Explain the proper way to store and rotate meat before it is boned.
 - b. Identify equipment and hand tools used in boning procedures.
 - c. Demonstrate the ability to properly sharpen knives.
 - d. Given various types of boneless meat, demonstrate the ability to make acceptable retail cuts.
 - e. Tray and wrap boneless retail cuts for maximum shelf life.
 - f. Demonstrate the relationship between sanitation and profit in boning.

Course Number and Name: MQT 1234 Merchandising of Poultry, Fish, Seafood, and Smoked Meats

Description: This course includes cutting and merchandising poultry and fish products; merchandising of smoked meat counter; refrigeration; and display techniques of poultry, fish, seafood, and smoked meats.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Explain procedures for cutting and packaging poultry, fish, and seafood.
 - a. Demonstrate knowledge of customer preference in fresh and frozen fish, seafood, and poultry.
 - b. Identify methods of merchandising poultry.
 - c. Identify methods of merchandising fish and seafood.
 - d. Demonstrate ability to figure markup, add to wholesale price, and project a profit.
 - e. Describe the different types of fish and other seafood merchandise sold in a given area.
 - f. Describe the different types of poultry merchandise sold in a given area.
2. Discuss and demonstrate the display and rotation of the smoked meat case.
 - a. Define the term smoked meat as it applies to meat merchandising.
 - b. Recognize the different types of smoked meats that are merchandised in a given area.
 - c. Rotate the smoked meat to insure freshness.
 - d. Correlate the type of smoked meat with the season of the year.
 - e. Describe the types of packaging techniques used for smoked meat.
 - f. Recognize and identify the varieties of sausages and processed meats merchandised in a given area.
 - g. Properly display and maintain the smoked meats case.
3. Display poultry and fish for greater profit.
 - a. Pack poultry for volume sales.
 - b. Demonstrate methods of fish and seafood preparation for eye appeal and palatability.
 - c. Tray fish in an eye appealing manner.
 - d. Cut up poultry and display parts.
 - e. Given various cuts of fish, a wrapping machine, and equipment, wraps the packages for a self-service display case.
 - f. Given various cuts of poultry, a wrapping machine, and equipment, wraps the packages for a self-service display case.
 - g. Given a cooler or other storage area, arrange stock and other goods so that air circulation is not restricted in any way.
 - h. Given a thermostat-controlled display case, control the temperature.
 - i. Given packaged fish, seafood, and poultry trays and a cooler, handle the cooler so that the oldest products are used first.
 - j. Describe the proper storage temperatures for maximum storage life of meat, seafood, and poultry, using a cooler, display case, or freezer.
 - k. Given stock on hand and a record of previous sales, prepare orders for fish, seafood, and poultry.
 - l. Given proper cleaning and sanitizing solutions, demonstrate the proper procedures for cleaning cooler, cutting, and display areas.

Course Number and Name: **MQT 1314 Display Pricing and Marketing Techniques**

Description: This course includes advanced merchandising techniques including wholesale purchasing, wholesale and retail meat pricing, and gross profit control yield data.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Determine wholesale and retail meat pricing.
 - a. Define supply and demand as pertaining to meat merchandising.
 - b. Recognize availability and price of wholesale meat items.
 - c. Demonstrate a running knowledge of the demand inventory and volume, and relate this to a reasonable profit.
 - d. Use a computerized electronic scale system to conduct a profit cutting test for gross profit control and yield data.
 - e. Demonstrate the improvement of profit through good merchandising techniques.
 - f. Plan an effective weekly sales campaign.
2. Explain how profit can be affected by amount of yield.
 - a. Define yield, and explain how it is usually quoted.
 - b. Demonstrate proper boning skills for maximum yield.
 - c. Demonstrate proper trimming skills according to store policies and guidelines for maximum yield.
 - d. Demonstrate the ability to purchase meat for minimum trim and maximum yield.
 - e. Explain how yield affects profit.
 - f. Explain how yield is affected by refrigeration and storage.

Course Number and Name: **MQT 1324 Display Pricing and Marketing Techniques II**

Description: This course includes advanced merchandising procedures including conducting cutting tests and forecasting gross profits.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Conduct cutting tests.
 - a. Define cutting test.
 - b. Conduct a cutting test on all wholesale primal cuts that are merchandised.
 - c. Conduct a cutting test on the principal different methods used to cut meat.
2. Forecast gross profits.
 - a. Define margin, markup, and shrinkage as they apply to meat merchandising.
 - b. Calculate gross profit for specified time.
 - c. Keep accurate records on cutting tests in order to forecast profits.
 - d. Define the term projection as it applies to gross profits.
 - e. Forecast gross profits.

Course Number and Number: **MQT 1414** **Advanced Meat Merchandising I**

Description: This course is a study of portion control, nutritional values of red meat and poultry, steps and cycles associated with marketing red meat and poultry, and factors that affect meat prices.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Explain portion control as it applies to the food service industry.
 - a. Explain why portion control is so important in the food service industry.
 - b. Cut retail cuts of beef according to portion control principles.
 - c. Cut retail cuts of pork according to portion control principles.
 - d. Cut retail cuts of lamb according to portion control principles.
 - e. Cut retail cuts of poultry according to portion control principles.
 - f. Cut wild game according to portion control principles.
 - g. Cut goat according to portion control principles.
2. Describe and list nutrient values of red meats and poultry in the human diet.
 - a. List the most important nutrient values of meat as they contribute to the human diet.
 - b. List the most important nutrient values of poultry as they contribute to the human diet.
3. Recognize the steps and cycles associated with the marketing of red meat and poultry.
 - a. Trace steps in meat merchandising on a flowchart to show all the steps in marketing.
 - b. List the steps involved in production of red meat animals including length of gestation, generation intervals, marketing cycles, and others.
 - c. List the steps involved in production of poultry including length of gestation, generation intervals, marketing cycles, and others.
 - d. Describe the edible and inedible byproducts of the meat industry.
4. Discuss factors affecting meat prices.
 - a. Explain how the cost of energy affects the cost of meat.
 - b. Explain how the cost of grain and other feed stuffs affects the cost of meat.
 - c. Explain how adverse weather conditions, national disasters, and other factors affect the cost of meat.
 - d. Describe how the state of other industries (steel, paper, chemical, and agriculture) affects the meat industry.
 - e. Explain how government agencies such as the Occupational Safety and Health Administration and the Food and Drug Administration affect the meat industry.

Course Name and Number: **MQT 1424 Advanced Meat Merchandising II**

Description: This course is a special study of meat merchandising as it affects the many different phases of the meat industry. The course includes salesmanship and customer relations.

Hour Breakdown:	Semester Credit Hours	Lecture	Lab	Contact Hours
	4	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Recognize the importance of good salesmanship.
 - a. Demonstrate how personal attitude affects selling.
 - b. Describe how to have a good working knowledge of the clientele in a given specific sales area.
 - c. Demonstrate a good customer and meat salesperson relationship.
 - d. Demonstrate effective communication techniques in selling meat.
2. Identify factors that affect maximum sales.
 - a. Demonstrate the most effective way to merchandise meat for maximum sales.
 - b. List advantages and disadvantages of boneless cuts, and describe how they affect profits.
 - c. Demonstrate the maintenance of the display counter for attractive appearance and maximum sales.
 - d. Demonstrate awareness of seasonal trends and meat cycles as they affect purchasing and pricing of meats.

Course Name and Number: **MQT 1514** **Catering, Food Preparation, and Value Added Products**

Description: This course includes basic information about the catering industry including types of catering services, how to start a business, selling catering services, food safety, and arranging specific catering events. The course also includes basic information about the trend toward marketing value-added products.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
8	0	8	120

Prerequisite: None

Student Learning Outcomes:

1. Discuss the basic types of catering services.
 - a. Discuss the advantages and disadvantages of catered banquet hall type service.
 - b. Discuss the advantages and disadvantages of off-premises catering.
 - c. Discuss the advantages and disadvantages of mobile-unit catering.
2. Describe how to start a catering business.
 - a. List and describe the laws and regulations necessary to start or set up a catering business.
 - b. Discuss the types of equipment needed to set up a catering business.
 - c. Describe the types of staff or personnel required to set up a catering business.
 - d. Discuss the basic business practices required to set up a catering business.
3. Explain how to sell catering services to the public.
 - a. Discuss the types of advertising available to sell catering services.
 - b. Discuss the importance of public relations in promoting catering services.
4. Examine the importance of food safety in the catering business.
 - a. Discuss the proper temperatures required during cooking and transport of food products.
 - b. Practice quality assurance in the purchase of all materials used in the catering business.
 - c. Practice proper sanitation procedures from food preparation to presentation.
 - d. Discuss accident prevention in the kitchen, dining room, and on-the-road.
 - e. Discuss the profitability of value-added products.
 - d. Discuss accident prevention in the kitchen, dining room, and on-the-road.
5. Explain the importance of arranging the catered event.
 - a. Discuss and practice estimation of costs for a specific event.
 - b. Discuss and demonstrate how to prepare a menu.
 - c. Estimate quantities of food required for a specific event.
 - d. Arrange the room for a specific event.
 - e. Select a method of table setting and service.
 - f. Allocate time when given a specific room and catered affair.
6. Discuss the emerging trends in value-added products.
 - a. Define value-added products.
 - b. Discuss the trend toward marketing value-added products as a convenience item in retail stores.

- c. Describe recipes and ideas for convenience packs that include meat and all other required ingredients including seasoning.
- d. Discuss further processing to make value-added products at the store level.
- e. Discuss the profitability of value-added products.

Course Name and Number: **MQT 1522 Food Safety**

Description: This course includes basic information related to food safety.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
2	2	0	30

Prerequisite: Completion of one semester of coursework in PS Meat Merchandising program

Student Learning Outcomes:

1. Discuss issues related to food safety.
 - a. Describe the dangers of foodborne illness, methods for prevention, and the food safety responsibilities of food workers.
 - b. Discuss the personal hygiene requirements of food handlers.
 - c. Examine methods for maintaining sanitary facilities and equipment and managing pests.
 - d. Describe food safety regulations and standards, including the government regulatory system for food, the food code, and the foodservice inspection process.
2. Investigate threats to food safety.
 - a. Describe microorganisms, including bacteria, viruses, parasites, and fungi, that threaten food safety.
 - b. Discuss types of contamination, food allergens, and foodborne illness.
 - c. Discuss methods of preventing cross-contamination.
 - d. Examine the importance of controlling time and temperature.
3. Investigate the flow of food.
 - a. Discuss principles of purchasing, receiving, and inspecting food.
 - b. Examine general storage guidelines and types of storage.
 - c. Discuss preparation processes: handling, thawing, preparing, cooking, cooling, and reheating food.
 - d. Discuss principles for holding and serving food and types of foodservice operations.
4. Examine food safety systems.
 - a. Describe types of food safety programs.
 - b. Discuss active managerial control.
 - c. Examine principles of HACCP.
 - d. Discuss crisis management.

RECOMMENDED TOOLS AND EQUIPMENT

CAPITALIZED ITEMS

1. Band saw (1 per program)
2. Colosimo's press (1 per program)
3. Cooler, walk-in, 10 ft x 15 ft (1 per program)
4. Freezer, walk-in, 10 ft x 15 ft (1 per program)
5. Grinder (1 per program)
6. Hand wash basin, stainless steel (1 per program)
7. Hot water heater, 100-gal size (1 per program)
8. Ice maker, 800 lb capacity (1 per program)
9. Immobilizer (1 per program)
10. Kemtec smoker-oven (1 per program)
11. Mixer (1 per program)
12. Patty machine with table (1 per program)
13. Pickle pump (1 per program)
14. Platform scales with table (1 per program)
15. Power washer (1 per program)
16. Rail system with hoist, scales, and easy drop off (1 per program)
17. Saw, carcass split (1 per program)
18. Sink, three compartment, stainless steel (1 per program)
19. Slicer, automatic, with table (1 per program)
20. Slicer, manual, with table (1 per program)
21. Smoker truck, stainless steel (1 per program)
22. Stuffer, hydraulic (1 per program)
23. Stuffing table, 3 ft x 8 ft (1 per program)
24. Table, boning, 3 ft x 8 ft (2 per program)
25. Table, break down, 3 ft x 8 ft (2 per program)
26. Table, stainless steel, 3 ft x 8 ft (3 per program)
27. Tenderizer with table (1 per program)
28. Vacuum packing machine with table (1 per program)
29. Vacuum tumbler (1 per program)

NON-CAPITALIZED ITEMS

1. Aprons (15 per program)
2. Band saw blades (10 per program)
3. Boning knives (15 per program)
4. Brine vats (3 per program)
5. Butcher knives (5 per program)
6. First aid kit with supplies for 20 students (1 per program)
7. Freezer baskets (30 per program)
8. Freezer trucks (4 per program)
9. Gambrel (15 per program)
10. Grinder knives (3 per program)
11. Handsaw (2 per program)
12. Handsaw blades (10 per program)
13. Heat seal machine (2 per program)
14. High pressure water hose, 50 ft (1 per program)
15. Knife and steel racks (2 per program)
16. Knife and steel scabbards (10 per program)
17. Knife sterilizer (2 per program)
18. Paper racks (2 per program)
19. Plastic lugs (20 per program)
20. Portable lugs (20 per program)
21. Rail hooks (30 per program)
22. Safety gloves (5 pairs per program)
23. Salinometer (1 per program)
24. Sharpening hones (1 per program)
25. Skinning knives (6 per program)
26. Steels (2 per program)
27. Stocking hooks (30 per program)
28. Thermometer (10 per program)
29. Weight scales, small (2 per program)

RECOMMENDED INSTRUCTIONAL AIDS

It is recommended that instructors have access to the following items:

1. A/V stand (1 per program)
2. Computer (1 per program)
3. Monitor, 25 in. color (1 per program)
4. Printer (1 per program)
5. Projector, data (2 per program)
6. Screen, projection (1 per program)
7. DVD player (1 per program)
8. Smartboard

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:
 - Career Certificate Required Course – A required course for all students completing a career certificate.
 - Technical Certificate Required Course – A required course for all students completing a technical certificate.
 - 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 course
- 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:
 - 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
 - Activities that develop a higher level of mastery on the existing competencies and suggested objectives
 - Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed or revised
 - 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
 - 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)

COURSE CROSSWALK

Meat Merchandising Technology CIP 12.0506 – Meat Cutting / Meat Cutter					
<i>Note: Courses that have been added or changed in the 2017 curriculum are highlighted.</i>					
Existing			Revised		
2010 MS Curriculum Framework			2017 MS Curriculum Framework		
Course Number	Course Title	Hours	Course Number	Course Title	Hours
MTV 1114	Meat Merchandising	4	MQT 1114	Meat Merchandising	4
MTV 1214	Identification of Wholesale and Retail Cuts	4	MQT 1214	Identification of Wholesale and Retail Cuts	4
MTV 1224	Preparation of Wholesale and Retail Cuts	4	MQT 1224	Preparation of Wholesale and Retail Cuts	4
MQT 1234	Merchandising of Poultry, Fish, Seafood, and Smoked Meats	4	MQT 1234	Merchandising of Poultry, Fish, Seafood, and Smoked Meats	4
MTV1314	Display Pricing and Marketing Techniques I	4	MQT 1314	Display Pricing and Marketing Techniques I	4
MTV 1324	Display Pricing and Marketing Techniques II	4	MQT 1324	Display Pricing and Marketing Techniques II	4
MTV 1414	Advanced Meat Merchandising I	4	MQT 1414	Advanced Meat Merchandising I	4
MTV 1424	Advanced Meat Merchandising II	4	MQT 1424	Advanced Meat Merchandising II	4
MTV 1522	Food Safety	2	MQT 1522	Food Safety	2
MTV 1514	Catering, Food Preparation, and Value-added Products	4	MQT 1514	Catering, Food Preparation, and Value-added Products	4