



# **American Meat Science Association**

**Culinary Meat Selection &  
Cookery Certification**

**Study Guide**

# CERTIFICATION OVERVIEW

The American Meat Science Association (AMSA) Culinary Meat Selection & Cookery Certification verifies individuals possess knowledge and skills needed to thrive within the restaurant and culinary industries. The certification exam assesses knowledge of culinary foundations, meat and food principles and food safety procedures.

## EXAM OVERVIEW

The AMSA Culinary Meat Selection & Cookery Certification is hosted on the iCEV testing platform. The certification exam is a 100-question, randomized assessment. Exam questions are in the format of multiple choice, sort order, diagramming, matching, labeling and other question types meant to fully evaluate an individual's competency of the industry standards. The certification exam should be proctored within a controlled environment. The proctor of the exam must review and verify all exam procedures and provide electronic documentation through the exam platform.

More information about the certification exam and testing platform, including optional preparation materials offered by iCEV, can be found at <https://www.icevonline.com/culinarymeat>

## ABOUT THE AMERICAN MEAT SCIENCE ASSOCIATION

The American Meat Science Association is a broad-reaching organization of individuals that discovers, develops and disseminates its collective meat science knowledge to provide leadership, education and professional development. Their passion is to help meat science professionals achieve previously unimaginable levels of performance and reach even higher goals. They accomplish this by fostering a learning community of meat scientists, industry partners, outside thought leaders and other stakeholders who embrace this vision. Its members conduct basic and applied research and education programs in muscle growth and development, meat quality, food safety, processing technology and consumer and marketing issues relevant to the international meat industry. Learn more at <https://meatscience.org/events-education/meat-industrycertifications>

# INDUSTRY STANDARDS

The certification exam assesses knowledge and skills from the following weighted industry standards set by AMSA:



## **CULINARY FOUNDATIONS- 20%**

- Knife Care & Use
- Knife Sharpening Procedures
- Cutting Techniques
- Mise en place
- Cooking Techniques
- Proper Storage Practices



## **MEAT SCIENCE & FOOD SAFETY PRINCIPLES- 20%**

- Nutritional Composition of Meat
- Meat Storage & Handling Procedures
- Meat Purchasing Specifications
- Food Microbiology Practices



## **MEAT & POULTRY OVERVIEW- 25%**

- Culinary Meat Fabrication Procedures
- Meat Cookery Techniques
- Culinary Poultry Fabrication Procedures



## **BEEF GRADING PROCEDURES- 10%**

- USDA Quality Grading
- USDA Yield Grading



## **RETAIL CUT IDENTIFICATION- 20%**

- Beef Retail Cut Identification
- Pork Retail Cut Identification
- Lamb Retail Cut Identification
- Variety Meats Identification
- Poultry Parts & Products Identification

# Industry Standard Overview

To pass the AMSA Culinary Meat Selection & Cookery Certification exam, certification candidates must have adequate knowledge of the industry standards. The following outlines an in-depth overview of the industry standards and sub-standards:



## Industry Standard: Culinary Foundations

- Mise en Place
- Parts of a Knife
- Knife Care & Use
- Types of Cuts
- Meat Preparation



## Industry Standard: Meat Science & Food Safety Principles

- Components of Meat
  - Protein
  - Fat
  - Fat-Soluble Vitamins
  - B-Vitamins
  - Iron
  - Essential Minerals
  - Water
- Meat Safety
- Foodborne Illness
- Irradiation
- Uniform Retail Meat Identity Standards
- Meat Products
- Meat Product Quality
  - Freezer Burn
  - Cooking Meat at too High a Temperature
  - Aging Process
  - Best if Used By
  - Kosher
- Temperatures
- Food/Meat Palatability
- Olfactory Response

## Industry Standard: Meat & Poultry Overview



- Tenderizing Meat
- Meat Aging
- Heat
- Cooking Methods
  - Dry
  - Moist
  - Deep Frying
  - Simmering

## Industry Standard: Beef Grading Procedures



- Marbling
- Quality Grades
- Beef Yield Grades
- Preliminary Yield Grade
- Kidney, Pelvic & Heart Fat
- Hot Carcass Weight • Ribeye Area
- Veal Quality Grades
- Lamb Quality Grades
- Pork Grades
- Meat Tenderness
- Quality Grades of Poultry
- Poultry Products
- Duck Meat
- Fish

## Industry Standard: Retail Cut Identification



- Primal Cuts of Beef
- Primal Cuts of Pork
- Primal Cuts of Lamb
- Beef Retail Cuts
- Pork Retail Cuts
- Lamb Retail Cuts

# Optional Preparation Materials Overview

The preparation materials offered by iCEV for the AMSA Culinary Meat Selection & Cookery Certification was specifically created to prepare candidates for the certification exam. While it is not required to complete the preparatory materials before accessing the certification exam, AMSA recommends certification candidates complete some form of training. The following outlines the lessons scope and objectives:

## Lesson 1: Background of the American Meat Science Association

1. To introduce students to the American Meat Science Association.
2. To state the purpose of the American Meat Science Association.

## Lesson 2: Meat Science & Food Safety

1. To explore legislation and history in relation to the meats industry.
2. To study animal care and handling techniques.
3. To identify the nutritional content and benefits of meat.
4. To consider consumer options when purchasing meat.
5. To describe meat storage and handling practices.
6. To understand meat cooking methods.
7. To study meat additives and processed meats.
8. To analyze food safety practices and causes of foodborne illnesses.

## Lesson 3: Food Quality & Palatability Factors

1. To explain the factors which affect food palatability.
2. To describe the importance of performing quality-assurance tests on food products.
3. To perform quality-assurance tests on food products.

## Lesson 4: Introduction to Culinary Techniques & Methods

1. To describe proper knife handling and use.
2. To identify common types of knife cuts.
3. To apply the concept of mise en place.
4. To examine the different cookery methods used in the professional kitchen.

## Lesson 5: Meat, Poultry & Seafood

1. To describe the different types of meat and meat grading systems.
2. To examine the preparation methods of meat.
3. To identify the different types of poultry.
4. To show the proper method of fabricating and preparing poultry.
5. To state the different types of seafood.
6. To analyze the proper method of preparing different types of seafood dishes.

## **Lesson 6: Meat Evaluation: Beef Quality Grading**

1. To understand why quality grades are important.
2. To examine maturity of beef carcasses.
3. To examine marbling of beef carcasses.
4. To look at factors used to calculate final quality grades.

## **Lesson 7: Meat Evaluation: Beef Yield Grading**

1. To understand why yield grades are important.
2. To look at the factors used to calculate final yield grades.

## **Lesson 8: Retail Cut ID**

1. To identify retail cuts of beef.
2. To identify retail cuts of pork.
3. To identify retail cuts of lamb.
4. To identify variety meats.

## **Lesson 9: Evaluating Ready-to-Cook Turkeys & Broilers**

1. To gain an understanding of how to grade a poultry carcass.
2. To learn the defects to look for on a poultry carcass.
3. To learn how to evaluate and place a class or ready-to-cook turkeys.
4. To gain an understanding of oral reasons.

## **Lesson 10: ID of Poultry Parts & Further Processed Poultry Meat Products Evaluation**

1. To understand how to identify different parts of a poultry carcass.
2. To know the defects of further processed poultry meats.
3. To understand how to evaluate further processed poultry meats.