



Jordan University of Science and Technology
Faculty of Veterinary Medicine
Veterinary Medicine And Surgery Department

VM362 Meat Hygeine And Inspection

First Semester 2021-2022

Course Catalog

2 Credit Hours. This course will provide participants with knowledge and comprehension on: slaughtering, stunning an carcass handling and judgement at the abattoir, biochemistry of postmortem muscle characteristics of beef, sheep, goat, horse, camel and ostrich meat, meat spoilage and preservation, examination of meat adulteration and species determination, microbial and chemical meat hazards, meat fermentation and processing, new technologies to enhance the safety of meat and meat products, meat packaging, HACCP. In addition, fish and seafood safety is covered.

Text Book

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| Title | Handbook of meat processing |
| Author(s) | Fidel Toldr? |
| Edition | 1st Edition |
| Short Name | Ref # 1 |
| Other Information | |

Course References

| Short name | Book name | Author(s) | Edition | Other Information |
|------------|-----------------------------------------------------|---------------------------|-------------|-------------------|
| Ref # 2 | HACCP and ISO 22000: Application to Foods of Animal | Ioannis S. Arvanitoyannis | 1st Edition | |

Instructor

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| Name | Prof. Mohammad Obaidat |
| Office Location | C1-L1 and C1-L2 |

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|--------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Office Hours | Sun : 11:30 - 12:30 Sun : 12:30 - 13:30 Mon : 11:30 - 12:30 Tue : 10:30 - 11:30 Wed : 11:30 - 12:30 Wed : 14:00 - 15:00 |
| Email | mmobaidat@just.edu.jo |

| Class Schedule & Room | |
|----------------------------------|---------------------------------------------------------|
| Section 1: | Lecture Time: Mon : 13:00 - 14:00 Room: قاعة ابن رشد |
| Section 2: | Lecture Time: Wed : 13:00 - 14:00 Room: قاعة ابن رشد |
| Section 3: | Lecture Time: Mon : 13:00 - 14:00 Room: U |
| Section 4: | Lecture Time: Wed : 13:00 - 14:00 Room: U |

| Prerequisites | | |
|----------------------|---------------------------------------------------------------|----------------------|
| Line Number | Course Name | Prerequisite Type |
| 663300 | VM330 Applied Veterinary Sciences And Diagnostic Laboratories | Prerequisite / Study |
| 663531 | VM353 Systemic Veterinary Pathology | Prerequisite / Study |

| Tentative List of Topics Covered | | |
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| Weeks | Topic | References |
| Weeks 1, 2 | Preharvest Meat Hygiene: 1. Automation and meat quality 2. E. coli O157: H7 3. Slaughter house interventions | From Ref # 1 |
| Week 3 | Slaughtering and Animal Welfare: 4. Stunning and animal welfare 5. Halal authenticity | From Ref # 1 |
| Weeks 4, 5 | Fresh Meat: 1. Biochemistry of postmortem muscle 2. Meat Color 3. Meat spoilage 4. Camel, Sheep and Goat meat | From Ref # 1 |
| Week 6 | Meat Preservation Technologies | From Ref # 1 |
| Weeks 7, 8 | Microbial Meat Safety: 1. Microbiological food safety issues 2. Danish initiatives | From Ref # 1 |
| Week 9 | Chemical Meat Safety: 1. Mycotoxins 2. Veterinary drug residues 3. Growth promoter | |

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| Weeks 10, 11 | Meat Processing: 1. Meat fermentation 2. Meat curing and smoking | From Ref # 1 |
| Week 12 | Intervention Technologies in Meat Safety: | From Ref # 1 |
| Week 13 | Meat Adulteration: 1. freezing and thawing 2. Meat adulteration 3. Species determination | From Ref # 1 |
| Week 14 | Meat Packaging: 1. MAP 2. Antimicrobial packaging | From Ref # 1 |
| Week 15 | HACCP: 1. HACCP Principles 2. HACCP Plan for Beef slaughterhouses | |
| Week 16 | Fish Safety | |

| Relationship to Program Student Outcomes (Out of 100%) | | | | | | | | | |
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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
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| Policy | |
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| Exams | All exams are closed book and notes. The final exam will include 20% of the questions from the first and second exam material and 80% from the final material. Incomplete exams need approval from the Dean/Department Head. The instructor can accept valid excuses from the students. |
| Cheating | Prohibited; and in case of cheating the student will be subject to punishment according to the University regulations as outlined in the students? university handbook. |
| Attendance | According to the University policy. Only 20% allowed which included excused and un-excused absences. (7 lectures absence will dismiss you from the class)- Attendance will be taken and entered online at end of each lecture |
| Withdraw | According to the University policy |
| Participation | Participation is encouraged |

Date Printed: 2021-11-14