

**Jordan University of Science and Technology**  
**Faculty/College of Veterinary Medicine**  
**Department of Veterinary Pathology and Public Health**  
**First Semester 2020/2021**

<b>Title &amp; Instructor</b>	
<b>Course Title</b>	<b>Meat Hygiene and Inspection</b> ( 2 Credit hours: 2 Theoretical and 0 Practical)
<b>Course Number</b>	VM 362
<b>Pre-Request</b>	VM 353 Systemic Veterinary Pathology VM 330 Applied Veterinary Sciences and Diagnostic Laboratories
<b>Instructor</b>	Prof. Mohammad M. Obaidat
<b>Office Location</b>	C1 L2
<b>Office Phone</b>	027201000 Ext. 22106
<b>Office Hours</b>	Sunday 11:30-12:30, 12:30-1:30 Monday 11:30-12:30 Tuesday 10:30-11:30 Wednesday 11:30-12:30 <b>Upon request by e-mail.</b>
<b>E-mail</b>	<a href="mailto:mmobaidat@just.edu.jo">mmobaidat@just.edu.jo</a>
<b>Teaching Assistant</b>	None

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### Course Description

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 & References

<b>Title</b>	Handbook of meat processing / edited by Fidel Toldrá, 2010 Safety of Meat and Processed Meat, edited by Fidel Toldrá, 2009 HACCP and ISO 22000: Application to Foods of Animal Origin by Ioannis S. Arvanitoyannis. 2009
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### Assessment

Assessment Type	Expected Due Date	Weight
<b>Mid Exam</b>	According to the university exams schedule	50%
<b>Final Exam</b>	According to the university exams schedule	50%
<b>Assignments &amp; Projects</b>	None	0%

Course Content		
Week	Topics	Chapter in Text/handouts
1, 2	<b>Preharvest Meat Hygiene:</b> <ol style="list-style-type: none"> <li>1. Automation and meat quality</li> <li>2. <i>E. coli</i> O157: H7</li> <li>3. Slaughter house interventions</li> </ol>	Power point presentation
3	<b>Slaughtering and Animal Welfare:</b> <ol style="list-style-type: none"> <li>4. Stunning and animal welfare</li> <li>5. Halal authenticity</li> </ol>	Power point presentation
4 and 5	<b>Fresh Meat:</b> <ol style="list-style-type: none"> <li>1. Biochemistry of postmortem muscle</li> <li>2. Meat Color</li> <li>3. Meat spoilage</li> <li>4. Camel, Sheep and Goat meat</li> </ol>	Power point presentation
6	<b>Meat Preservation Technologies</b>	
7 and 8	<b>Microbial Meat Safety:</b> <ol style="list-style-type: none"> <li>1. Microbiological food safety issues</li> <li>2. Danish initiatives</li> </ol>	Power point presentation
9	<b>Chemical Meat Safety:</b> <ol style="list-style-type: none"> <li>1. Mycotoxins</li> <li>2. Veterinary drug residues</li> <li>3. Growth promoter</li> </ol>	Power point presentation
10 and 11	<b>Meat Processing:</b> <ol style="list-style-type: none"> <li>1. Meat fermentation</li> <li>2. Meat curing and smoking</li> </ol>	Power point presentation
12	<b>Intervention Technologies in Meat Safety:</b>	Power point presentation
13	<b>Meat Adulteration:</b>	Power point presentation

	<ol style="list-style-type: none"> <li>1. freezing and thawing</li> <li>2. Meat adulteration</li> <li>3. Species determination</li> </ol>	
14	<b>Meat Packaging:</b> <ol style="list-style-type: none"> <li>1. MAP</li> <li>2. Antimicrobial packaging</li> </ol>	Power point presentation
15	<b>HACCP:</b> <ol style="list-style-type: none"> <li>1. HACCP Principles</li> <li>2. HACCP Plan for Beef slaughterhouses</li> </ol>	Power point presentation
16	<b>Fish Safety</b>	Power point presentation

<b>Additional Notes</b>	
<b>Exams</b>	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.
<b>Cheating</b>	<b>Prohibited;</b> and in case of cheating the student will be subject to punishment according to the University regulations as outlined in the students' university handbook.
<b>Attendance</b>	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
<b>Participation</b>	Participation is encouraged
<b>Laboratory</b>	No laboratory work required
<b>Withdraw</b>	According to the University policy