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# STANDARD COURSE OUTLINE

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Annex 3



<b>Hashemite University</b>	 	<b>Animal Tissue Culture 2401042333</b>
<b>Faculty of Science</b>		<b>Pre-requisite: 110104102</b>
<b>Department of Biology and Biotechnology</b>		
<b>Course Syllabus</b>		
<b>Course Information</b>		
Lecture's Time	Mon, Wed: 8:30-9:30 a.m.	
Lecture Room	Biology Building Room 241	
Instructor	Prof. Lubna Tahtamouni	
Office Location	Biology Building 110	
Office Hours	Sun, Tue: 1-2 p.m. or by appointment	
<b>Text Book</b> Culture of Animal Cells, A Manual of Basic Techniques, R. Ian Freshney, Wiley, 2000, 4 <sup>th</sup> edition.		
<b>References(s)</b>		

### Grading Policy:

<b>Theory</b>		<b>Practical</b>	
1 <sup>st</sup> Exam	15%	Quizzes	10 %
2 <sup>nd</sup> Exam	15%	Midterm	40%
Other	30%	Reports	10%
Final Exam	40%	Final Exam	40%

### **Course Objectives**

This course provides students with the skills and knowledge to work in a modern biological laboratory making use of cell culture techniques. Emphasis is placed on aseptic techniques for animal cell culture and the requirements for cell growth in vitro. Topics covered include sterile and aseptic techniques, media preparation, cell count and viability, cryopreservation, subculturing, and applications using cell cultures

### **Teaching and Learning Methods**

**Lectures**

**PowerPoint Slides**

**Textbook**

### **Course Contents**

<b>Week</b>	<b>Topic</b>
<b>1</b>	<b>Introduction</b>
<b>2</b>	<b>Biology of Animal Cells</b>
<b>3</b>	<b>Tissue Culture Lab Design and Equipment</b>
<b>4</b>	<b>Tissue Culture Vessels and Consumables</b>
<b>5</b>	<b>Tissue Culture Medium</b>
<b>6</b>	<b>Aseptic Techniques and Contamination</b>
<b>7</b>	<b>Types of Culture</b>
<b>8</b>	<b>Primary Cultures</b>
<b>9</b>	<b>Cell Lines</b>
<b>10</b>	<b>Maintenance of Cultures</b>
<b>11</b>	<b>Cryopreservation</b>
<b>12</b>	<b>Applications of Tissue Culture- Introduction</b>
<b>13</b>	<b>Applications of Tissue Culture I</b>
<b>14</b>	<b>Applications of Tissue Culture II</b>
<b>15</b>	<b>Applications of Tissue Culture III</b>
<b>16</b>	<b>Final Examination</b>