

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Biochemsitry		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory
Module Code	TAMO 302		<input checked="" type="checkbox"/> Lecture
ECTS Credits	2		<input checked="" type="checkbox"/> Lab
SWL (hr/sem)	5		<input type="checkbox"/> Tutorial
			<input type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	three	Semester of Delivery	
Administering Department	Type Dept. Code	College	Technical Agricultural College
Module Leader	Ghassan fithy mohammed	e-mail	Ghassanalubaidy1961@ntu.edu.iq
Module Leader's Acad. Title	Asst.Professor	Module Leader's Qualification	master
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Organic chemistry	Semester	two
Co-requisites module	physiology	Semester	two

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<b>Module Objectives</b> أهداف المادة الدراسية	<ol style="list-style-type: none"><li>1. To develop problem solving skills and understanding of circuit theory through the application of techniques.</li><li>2. To understand voltage, current and power from a given circuit.</li><li>3. This course deals with the basic concept of electrical circuits.</li><li>4. This is the basic subject for all electrical and electronic circuits.</li><li>5. To understand Kirchoff's current and voltage Laws problems.</li><li>6. To perform mesh and Nodal analysis.</li></ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<p>Important: Write atleast 6 Learning Outcomes, better to be equal to the number of study weeks.</p> <ol style="list-style-type: none"><li>1. Recognize how electricity works in electrical circuits.</li><li>2. List the various terms associated with electrical circuits.</li><li>3. Summarize what is meant by a basic electric circuit.</li><li>4. Discuss the reaction and involvement of atoms in electric circuits.</li><li>5. Describe electrical power, charge, and current.</li><li>6. Define Ohm's law.</li><li>7. Identify the basic circuit elements and their applications.</li><li>8. Discuss the operations of sinusoid and phasorsinan electric circuit.</li><li>9. Discuss the various properties of resistors, capacitors, and inductors.</li><li>10. Explain the two Kirchoff's laws used in circuit analysis.</li><li>11. Identify the capacitor and inductor phasor relationship with respect to voltage and current.</li></ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><u>Part A - Circuit Theory</u></p> <p>DC circuits – Current and voltage definitions, Passive sign convention and circuit elements, Combining resistive elements in series and parallel. Kirchoff's laws and Ohm's law. Anatomy of a circuit, Network reduction, Introduction to mesh and nodal analysis. [15 hrs]</p> <p>AC circuits I – Time dependent signals, average and RMS values. Capacitance and inductance, energy storage elements, simple AC steady-state sinusoidal analysis. [15 hrs]</p> <p>AC Circuits II - Phasor diagrams, definition of complex impedance, AC circuit analysis with complex numbers. [10 hrs]</p> <p>RL, RC and RLC circuits - Frequency response of RLC circuits, simple filter and band-pass circuits, resonance and Q-factor, use of Bode plots, use of differential equations and their solutions. Time response (natural and step responses). Introduction to second order circuits. [15 hrs]</p>

	<p>Revision problem classes [6 hrs]</p> <p><u>Part B - Analogue Electronics</u></p> <p>Fundamentals</p> <p>Resistive networks, voltage and current sources, Thevenin and Norton equivalent circuits, current and voltage division, input resistance, output resistance, coupling and decoupling capacitors, maximum power transfer, RMS and power dissipation, current limiting and over voltage protection. [15 hrs]</p> <p>Components and active devices – Components vs elements and circuit modeling, real and ideal elements. Introduction to sensors and actuators, self-generating vs modulating type sensors, simple circuit interfacing. [7 hrs]</p> <p>Diodes and Diode circuits – Diode characteristics and equations, ideal vs real. Signal conditioning, clamping and clipping, rectification and peak detection, photodiodes, LEDs, Zener diodes, voltage stabilization, voltage reference, power supplies. [15 hrs]</p>
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<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	<p>Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the sametime refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.</p>

<b>Student Workload (SWL)</b> الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا			
<b>Structured SWL (h/sem)</b>		<b>Structured SWL (h/w)</b>	
الحمل الدراسي المنتظم للطالب خلال الفصل	109		7



<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	<b>Unstructured SWL (h/w)</b>	6
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<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>200</b>
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	قدمة وتعارف عامة اهمة الكيمياء الحيوية في دراسة علم الحيوان
Week 2	السكريات تعريفها السكريات الاحادية خواصها اهم تفاعلاتها
Week 3	السكريات الثنائية خواصها اهم تفاعلاتها
Week 4	السكريات المعقدة خواصها اهم تفاعلاتها
Week 5	الدهون خواصها وانواعها ، الدهون المشبعة وغير المشبعة ، تفاعلات الدهون
Week 6	البروتينات تكوينها ، وخواصها ، الاحماض الامينية تعريفها فاندتها واقسامها
Week 7	الانزيمات تعريفها انواعها طرق عمل الانزيمات
Week 8	الانزيمات المساعدة تعريفها انواعها طرق عملها
Week 9	الفيتامينات تعريفها تركيبها الفيتامينات الالوية في الماء والدهون
Week 10	الهormونات تعريفها تركيبها الفرق بين الهرمونات والفيتامينات والانزيمات
Week 11	التمثيل الغذائي للكربوهيدرات هدم وبناء الكربوهيدرات
Week 12	التمثيل الغذائي للدهون هدم وبناء الدهون



Week 13	التمثيل الغذائي للبروتين هدم وبناء البروتين
Week 14	البول الخواص الفيزيائية والكيميائية
Week 15	

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر.

	Material Covered
Week 1	فحص عينات من المحاليل البسيطة مثل الماء
Week 2	تفاعلات الكربوهيدرات الكشف عن السكريات في المختبر
Week 3	كشف فehلنك ، كشف بارفويد
Week 4	طريقة التفريق بين السكريات الاحادية والثنائية
Week 5	الكشف عن السكريات المعقدة
Week 6	تقدير السكر في الدم
Week 7	تشخيص مجهول لسكريات لمعرفة نوع السكريات
Week 8	الدهون تفاعلاتها ذوبانها في المذيبات العضوية
Week 9	تفاعلات الكوليسترول
Week 10	تفاعلات البروتين
Week 11	كشف ميلون كشف بايوريت
Week 12	تخثر البروتينات بالحرارة
Week 13	التفاعلات الكيمياوية للبول
Week 14	التفاعلات الفيزياوية للبول
Week 15	تقدير مكونات الدم الكيمياوية

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Biochemistry Textbook	
Recommended Texts		
Websites		

## Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
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<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group</b>	<b>FX - Fail</b>	راسب (فيد المعالجة)	(45-49)	More work required but credit awarded

(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required
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**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Meat production technology		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory
Module Code	ANP308		<input checked="" type="checkbox"/> Lecture
ECTS Credits	3		<input type="checkbox"/> Lab
SWL (hr/sem)	5		<input type="checkbox"/> Tutorial
			<input checked="" type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	one	Semester of Delivery	two
Administering Department	Animal production ANP	College	Technical Agricultural College TAMO
Module Leader	Mohammed Waad Mohammed	e-mail	Mohammed.waad88@ntu.edu.iq
Module Leader's Acad. Title	Asst. lec.	Module Leader's Qualification	Master degree
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Meat cattle production	Semester	
Co-requisites module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1. The meat industry in the industrialized world is the largest segment of the food industry. Its main purpose is to obtain livestock from producers and to process the livestock into meat and nonfood products.</li><li>2. Addition of different ingredients to meat improves taste and flavour. Specific processing conditions and ingredients improve shelf life. Processed products are convenient to handle and eat. Processing improves nutritive value.</li><li>3. Meat preservation helps to control spoilage by inhibiting the growth of microorganisms, slowing enzymatic activity, and preventing the oxidation of fatty acids that promote rancidity.</li><li>4. Meat and poultry are great sources of protein. They also provide lots of other nutrients your body needs, like iodine, iron, zinc, vitamins (especially B12) and essential fatty acids. So it's a good idea to eat meat and poultry every week as part of your balanced diet.</li></ol>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1. In the practical meat production lesson in the Department of Animal Production in the third stage of our college, focus is on topics such as Islamic slaughter, cutting, muscle separation, and studying proportion equations between different parts. This lesson is supervised by Professor Dr. Rabie Mezher Mahmoud<sup>1</sup>. These topics are considered an essential part of the Meat Production and Processing Technology major, where the principles of animal production and its importance are taught<sup>2</sup>.</li></ol>

Indicative Contents

المحتويات الإرشادية

- 1- Introduce the student about the importance of Humane Animal Treatment Humane animal treatment is one of the fundamental principles of ethical meat production.
- 2- Significance of Sustainable Farming Practices Sustainable farming practices are another crucial aspect of ethical meat production.
- 3- Role of Responsible Use of Antibiotics and Hormones.
- 4- Concept of Transparency and Traceability in Meat Production

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>Teaching and training students: The curriculum aim to teach and train undergraduate and graduate students in the field of meat and its quality.</p> <p>Maintaining high standards of meat quality: The curriculum strictly conducts meat quality tests according to set standards.</p> <p>The curriculum provides its services to the community by providing knowledge and advice about meat quality.</p>

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	45	Structured SWL (h/w)	3





Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	30	Unstructured SWL (h/w)	2
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Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	Meat composition Histological composition of muscles
Week 2	Chemical composition of meat
Week 3	Factors affecting the nature and composition of meat
Week 4	Meat slaughterhouses
Week 5	Differences between animal sacrifices
Week 6	Estimating the age of animals
Week 7	Cutting animal carcasses and related considerations
Week 8	Methods of preserving meat
Week 9	Preserving meat by cooling and freezing
Week 10	Microorganisms in meat
Week 11	Diseases common between humans and animals
Week 12	Tenderizing meat

Week 13	Fish spoilage and preservation methods
Week 14	Spoilage of poultry meat and preservation methods
Week 15	Manufacturing processes performed on meat and meat marketing

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمخت.

	Material Covered
Week 1	Histological composition of meat
Week 2	Chemical composition of meat
Week 3	Animal slaughters
Week 4	Poultry slaughterhouses
Week 5	Differences between animal sacrifices
Week 6	Estimating the age of animals
Week 7	Cutting carcasses
Week 8	Methods of preserving meat
Week 9	Methods of preserving meat: cooling and freezing
Week 10	Microorganisms in meat
Week 11	Methods of transmission of common diseases between humans and animals
Week 12	Tenderizing meat
Week 13	Fish spoilage and preservation methods
Week 14	Spoilage of poultry meat and preservation methods
Week 15	Manufacturing processes performed on meat

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	كتاب حفظ وتصنيع اللحوم/مجموعة مؤلفين	Yes
Recommended Texts	book of Meat and meat processing , Edited by Y.H.Hui phd	No
Websites	<a href="http://wikipedia.org">wikipedia.org</a> إنتاج اللحوم	

## Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings

	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded



(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required
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Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Wild animals and decorations		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory
Module Code	ANP451		<input checked="" type="checkbox"/> Lecture
ECTS Credits	3		<input type="checkbox"/> Lab
SWL (hr/sem)	5		<input type="checkbox"/> Tutorial
			<input checked="" type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	one	Semester of Delivery	two
Administering Department	Animal production ANP	College	Technical Agricultural College TAMO
Module Leader	Mohammed Waad Mohammed	e-mail	Mohammed.waad88@ntu.edu.iq
Module Leader's Acad. Title	Asst. lec.	Module Leader's Qualification	Master degree
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	zoology	Semester	
Co-requisites module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Wildlife is one of the most important pillars of tourism, as humans are attracted to the beauty and life of wild animals. This reflects positively on the economy, creates new jobs, and also reflects positively on the environment and the preservation of these animals.</li><li>2. Historically, wildlife has played a large role in the daily lives of many cultures; As part of religious ceremonies, community events, and community bonding, wild animals still play a large role in many Third World countries.</li><li>3. Wildebeest migration, distribution and behavior patterns can be a vital indicator of ecosystem health and the deeper impacts of climate change.</li><li>4. Scientists can use animal distribution models to determine the best ways to preserve the natural environment; Animal behavior can also be an important indicator of unprecedented events, such as earthquakes, tsunamis or large storms; Historical information shows that wild animals can behave differently when they sense an imminent threat, and if this knowledge is harnessed effectively, it can save countless lives through early warning systems.</li></ol>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>Terrestrial animals can be divided into different species according to their taxonomic categories including phylum, class, order and family, and are further divided into categories such as invertebrates; Those that do not have spinal cords, and vertebrates; Those that have spinal cords. Invertebrates consist of animals such as insects, worms, crustaceans, molluscs, and cephalopods, while vertebrates consist of animals such as mammals, reptiles, fish, birds, and amphibians. These animals are considered land animals if not animals that It can be raised at home</p>

Indicative Contents

المحتويات الإرشادية

. Wild animals are free-ranging animals that live and reproduce in the wild. They are the opposite of domesticated animals. They depend on themselves to hunt and find a shelter for themselves without human intervention. They constitute an important part of livestock, and cannot be dispensed with in the animal world for any reason. They are They are exposed to many risks, such as extinction, hunting, and predation from more powerful predators, compared to animals that live under human care Therefore, it requires careful study and attention.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>Teaching and training students: Animals acquire the character of the wild when they possess these characteristics:</p> <p>Living in nature: An animal is classified as a wild animal when its natural habitat is the wilderness.</p> <p>Inability to be tamed: An animal is classified as wild when it depends on itself to find its home and obtain its food to survive, and it does not interact with humans.</p>

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	45	Structured SWL (h/w)	3



Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	30	Unstructured SWL (h/w)	2
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Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
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Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	The natural and economic importance of wild animals
Week 2	Groups of wild animals and their classifications
Week 3	The importance of wild animals among Arabs before and after Islam and the present time
Week 4	Nutritional care for various wild animals, both in zoos and nature reserves
Week 5	Veterinary and reproductive care for wild animals
Week 6	Genetic improvement, breeding and selection for wild animals
Week 7	Types of ornamental chickens
Week 8	Ornamental chicken specifications
Week 9	Nutrition and management of ornamental chickens
Week 10	Types of ornamental pigeons
Week 11	Feeding of ornamental pigeons
Week 12	Managing of ornamental pigeons

Week 13	Reproduction in pigeons
Week 14	Diseases affecting pigeons and methods of prevention and treatment
Week 15	General review of the curriculum

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمخت.

	Material Covered
Week 1	Wild animal pens and cages
Week 2	Definition of the reserve and management of wild animal reserves
Week 3	Catching, handling and transporting wild animals
Week 4	Feeding, cleaning, daily treatments and newborn feeding
Week 5	Reproductive care, multiplying newborns, training them, and releasing them into the wild
Week 6	Zoo records management
Week 7	Estimating the age of the animal
Week 8	Learn about the specifications of ornamental chickens
Week 9	formation of ornamental chicken feeds
Week 10	Composition of ornamental pigeon diets
Week 11	Mating
Week 12	Monitor egg incubation and hatching
Week 13	Monitoring the feeding of mother pigeons to her young
Week 14	Raising hatched chicks
Week 15	General review of the curriculum

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	كتاب إدارة الحيوانات البرية / تأليف: ا.د حميد مجيد البياتي	No
Recommended Texts	Textbook of wild and zoo animals/jacob v.cheeran	No
Websites	<a href="http://wikipedia.org">wikipedia.org</a> (الحيوانات البرية)	

## Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
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# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Veterinary Pharmacology and toxicology		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP 302		
ECTS Credits	2		
SWL (hr/sem)	4		
Module Level	THREE	Semester of Delivery	
Administering Department	Animal Production department	College	Technical Agricultural College
Module Leader	Yahya N.M. ALKATEB	e-mail	<a href="mailto:Yahyanatiq2003@ntu.edu.iq">Yahyanatiq2003@ntu.edu.iq</a>
Module Leader's Acad. Title	Asst.lecturer	Module Leader's Qualification	MSc.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2021	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<b>Module Objectives</b> أهداف المادة الدراسية	<ol style="list-style-type: none"><li>1. Introducing the student to the most important basic information about the veterinary pharmacology , their uses and side effects.</li><li>2. Teaching and training the student to know its drugs classification .</li><li>3. Introducing the student to the most important basic experience of routes of administration.</li></ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"><li>1. The collection of usefull information about the animal general health condition and animal needs of supplementation.</li><li>2. The ability of managing moderate animal diseases with minemum loses.</li><li>3. The student has knowledge about the drugs , there uses and side effects .</li><li>4. the students has a full knowledge of the preveanting and controling of animal diseases by vaccination.</li><li>5. the students has a good experience of using drugs and suplemintarry treatments</li></ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><u>Part A - theoretical part</u></p> <p>Classification of drugs accoding to there effects , origins and chemical composition. [3 hrs]</p> <p>The suplimentation addative and controling of animal diseases. [3 hrs]</p> <p>The importance of vaccenation programs and prevaccenation system . [3 hrs]</p>

#### Part B - practical part

Routes of administration and animal manegments . [9 hrs].

vitamins and menirals requirments . [9 hrs].

doses and toxicity of drugs . [9 hrs].



## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<b>The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participation in relevant scientific conferences. Scientific laboratories with other universities.</b>
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## Student Workload (SWL)

### الحمل الدراسي للطالب محسوب لـ 60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	<b>Assignments</b>	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	All
	<b>Report</b>	1	10% (10)	13	LO #5, #8 and #10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hr	10% (10)	7	LO #1 - #7
	<b>Final Exam</b>	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	<b>VETERINARY PHARMACOLOGY</b>
Week 2	<b>PHARMACOKINETICS</b>
Week 3	<b>PHARMACODYNAMIC</b>
Week 4	<b>VETERINARY TOXICOLOGY</b>
Week 5	<b>ANTIMICROBIALS</b>
Week 6	<b>ANTIMICROBIALS RESISTANCE</b>
Week 7	<b>Oral fluid therapy</b>
Week 8	<b>Drug bioavailability</b>
Week 9	<b>Oral antibacterial therapy</b>
Week 10	<b>Drug excretion</b>
Week 11	<b>non-steroidal anti-inflammatory agents</b>
Week 12	<b>Steroidal anti-inflammatory agents</b>
Week 13	<b>Fever, trace metals and disease. The effect of antipyretic agents</b>
Week 14	<b>Enzyme induction and inhibition</b>
Week 15	<b>Residues of drugs</b>

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

week	Material Covered
Week 1	VETERINARY PHARMACOLOGY
Week 2	PHARMACOKINETICS
Week 3	PHARMACODYNAMIC
Week 4	VETERINARY TOXICOLOGY
Week 5	ANTIMICROBIALS
Week 6	ANTIMICROBIALS RESISTANCE
Week 7	Oral fluid therapy
Week 8	Drug bioavailability
Week 9	Oral antibacterial therapy
Week 10	Drug excretion
Week 11	non-steroidal anti-inflammatory agents
Week 12	Steroidal anti-inflammatory agents
Week 13	Fever, trace metals and disease. The effect of antipyretic agents
Week 14	Enzyme induction and inhibition
Week 15	Residues of drugs

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Veterinary Pharmacology and Toxicology EDITED BY Yves Ruckebusch	Yes
Recommended Texts	علم الادوية و العلاج تأليف : أ.د. علي اسماعيل عبيد السنافي 2012	No
Websites	<a href="https://www.toxicology.org/">https://www.toxicology.org/</a> <a href="https://www.aau.in/site">https://www.aau.in/site</a>	

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required
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**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.



## نموذج وصف المقرر

### وصف المقرر

1. يقدم هذا المقرر تعليم اساسيات و تطبيقات ميكانيكية الرسم الهندسي

أعداد الدرس: م. فرح عماد نعمت

2. المؤسسة التعليمية	جامعة بغداد\ كلية الهندسة
3. القسم العلمي / المركز	الهندسة البيئية
4. اسم / رمز المقرر	الرسم الهندسي
5. أشكال الحضور المتاحة	يوم بالاسبوع حضوري
6. الفصل / السنة	سنوي
7. عدد الساعات الدراسية (الكلي)	90 ساعة
8. تاريخ إعداد هذا الوصف	2021-2020
9. أهداف المقرر	
أن يكون الطالب قادرًا على فهم و استيعاب أهمية و تطبيقات الرسم الهندسي	

10. مخرجات المقرر وطرائق التعليم والتعلم والتقييم

أ- الاهداف المعرفية

1-بعد انتهاء الفصل، يكون الطالب قادر على إيجاد و تحليل أي شكل هندسياً.

2-القدرة على تحليل الاشكال المختلفة كمقطع او منظور.

3-جذب الطلاب الجامعيين والترحيب بهم في برنامج بكالوريوس العلوم في الهندسة البيئية ، ولتخرج بكالوريوس العلوم. الطلاب المبتكرون في حل المشكلات ، والذين يصبحون قادة في مؤسساتهم ، والذين يمتلكون المعرفة والمهارات المطلوبة لمجموعة واسعة من الوظائف والتغييرات المهنية.

ب - الاهداف المهاراتية الخاصة بالمقرر

- ب1 - أن تكون مقدراً لأهمية الدقة كمهندس في التطبيق العملي للرسم الهندسي و كذلك للمسائل الحسابية.  
ب2 - التركيز على أهمية التحلي بالصبر و العمل بروية للحصول على احسن نتائج.

طرائق التعليم والتعلم

الرسم باليد باستخدام مواد الرسم الهندسي الاساسية

طرائق التقييم

الواجب المنزلي المتعلق بحل المشكلة و الواجب الصفي لايجاد قابلية استيعاب الطالب خلال المحاضرة

ج- الاهداف الوجدانية والقيمية

- ج1- ان تمتلك وجهة نظر افضل كمهندس.  
ج2- قابلية فهم برامج تطبيقات الرسم الهندسي.  
ج3- تهيئة الطالب لمهنة ناجحة في مجال الهندسة البيئية.

طرائق التعليم والتعلم

الرسم باليد باستخدام مواد الرسم الهندسي الاساسية

طرائق التقييم

الواجب المنزلي المتعلق بحل المشكلة و الواجب الصفي لايجاد قابلية استيعاب الطالب خلال المحاضرة

د - المهارات العامة والتأهيلية المنقولة ( المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي ).

- د1- ان تكون ذو قابلية اكثر للتعلم و الاستقلال كمتعلم و الثقة بالنفس لحل المشاكل.  
د2- القدرة على تحسين المهارات العامة للدراسة و إدارة العمل.  
د3- القدرة على تحديد وصياغة وحل المشكلات الهندسية.  
د4- تحديد الأهداف الشخصية و تقدير مستوى التقدم لتحقيق الهدف المرجو.

## 11. بنية المقرر

الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة / أو الموضوع	طريقة التعليم	طريقة التقييم
1	3	<b>Engineering instruments and kinds of lines</b>	General definition of engineering drawing.	حضوري	أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية
2	3	<b>Engineering instruments</b>	Use of different engineering instruments	حضوري	أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية
3	3	<b>Lettering</b>	proper writing of letters and numbers	حضوري	أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية
4	3	<b>Engineering operations</b>	Calculation and Applications of different engineering operations	حضوري	أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية
5	3	<b>Engineering operations</b>	Calculation and Applications of different engineering operations	حضوري	أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية
6	3	<b>Engineering operations</b>	Calculation and Applications of different engineering operations	حضوري	أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية
7	3	<b>Ellipse</b>	Calculation and Applications of ellipse as a whole	حضوري	أسئلة خلال المحاضرة، تقديم أوراق



واجب صفي و واجب بيتي، امتحانات شهرية		and within a drawing			
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضوري	Calculation and Applications of ellipse as a whole and within a drawing	<b>Ellipse</b>	3	8
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضوري	Calculation and Applications of ellipse as a whole and within a drawing	<b>Ellipse</b>	3	9
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضوري	Calculation and Applications of ellipse as a whole and within a drawing	<b>Ellipse</b>	3	10
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضوري	putting dimensions on different drawings	<b>Dimensions</b>	3	11
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضوري	putting dimensions on different drawings	<b>Dimensions</b>	3	12
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضوري	Project different views from a 3- dimensional drawing	<b>Projections</b>	3	13
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضوري	Project different views from a 3- dimensional drawing	<b>Projections</b>	3	14

واجب بيتي، امتحانات شهرية					
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضور	Project different views from a 3- dimensional drawing	<b>Projections</b>	3	15
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضور	Project different views from a 3- dimensional drawing	<b>Projections</b>	3	16
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضور	Project different views from a 3- dimensional drawing	<b>Projections</b>	3	17
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضور	Project different views from a 3- dimensional drawing	<b>Projections</b>	3	18
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضور	Project a section from a view or a 3- dimensional drawing	<b>Sections</b>	3	19
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيتي، امتحانات شهرية	حضور	Project a section from a view or a 3- dimensional drawing	<b>Sections</b>	3	20
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و	حضور	Project a section from a view or a 3- dimensional drawing	<b>Sections</b>	3	21

واجب بيئي، امتحانات شهرية					
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Project a section from a view or a 3- dimensional drawing	<b>Sections</b>	3	22
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Project a section from a view or a 3- dimensional drawing	<b>Sections</b>	3	23
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Draw a 3- dimensional shape from 2 separate views	<b>Isometric projection</b>	3	24
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Draw a 3- dimensional shape from 2 separate views	<b>Isometric projection</b>	3	25
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Draw a 3- dimensional shape from 2 separate views	<b>Isometric projection</b>	3	26
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Draw a 3- dimensional shape from 2 separate views	<b>Isometric projection</b>	3	27
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و	حضورى	Draw a 3- dimensional shape from 2 separate views	<b>Isometric projection</b>	3	28

واجب بيئي، امتحانات شهرية					
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Draw a 3- dimensional shape from 2 separate views	Isometric projection	3	29
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى	Draw the missing view of a 2- view object	Missing views	3	30
أسئلة خلال المحاضرة، تقديم أوراق واجب صفي و واجب بيئي، امتحانات شهرية	حضورى				

## 12. البنية التحتية

"Engineering Drawing for the 1st year By R.B.Gupta"	1- الكتب المقررة المطلوبة
French,"Engineering Drawing"	2- المراجع الرئيسية (المصادر)
Textbook of Engineering Drawing by K. Venkata Reddy	أ) الكتب والمراجع التي يوصى بها (المجلات العلمية، التقارير،.....)
<a href="http://www.jaist.ac.jp/nmcenter/mshop/mshp/pdf/MDWfull_E.pdf">http://www.jaist.ac.jp/nmcenter/mshop/mshp/pdf/MDWfull_E.pdf</a> <a href="https://doc.lagout.org/science/0_Computer%20Science/9_Others/Textbook%20of%20Engineering%20Drawing.pdf">https://doc.lagout.org/science/0_Computer%20Science/9_Others/Textbook%20of%20Engineering%20Drawing.pdf</a> <a href="https://bharatskills.gov.in/pdf/E_books/Engineering_Drawing_1st_Sem_Final.pdf">https://bharatskills.gov.in/pdf/E_books/Engineering_Drawing_1st_Sem_Final.pdf</a>	ب) المراجع الالكترونية، مواقع الانترنت .....'

## 13. خطة تطوير المقرر الدراسي

يتضمن التطوير المزيد من تطبيقات الكمبيوتر باستخدام برامج الحاسوب.

- مقدمة عن برنامج الاوتوكاد
- استخدام واجهة المستخدم للبرنامج وكيفية ضبط الإعدادات
- استخدام أوامر الرسم (الخطوط، الدوائر، المستطيل، الاقواس، المضلعات، التهشير، ... الخ)
- التهشير والتدرجات اللونية وتغيير شكله بالكامل
- النسخ وتحريك الرسم والتدوير وتوسيع الرسمة واستخدامات أخرى متعددة Modify استخدام أوامر التعديل
- إضافة النصوص بالرسم وإظهار أبعاد الرسم وإدراج الجداول Annotation أوامر ال
  - Layers التعرف على الطبقات
  - التطبيق على رسومات ومخططات رسم مشروع كامل
    - رسم الأشكال الهندسية ثلاثية الأبعاد
    - رسم أشكال ثلاثية الأبعاد
    - التعديل على الرسومات ثلاثية الأبعاد
    - الإخراج والطباعة

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Mathematics		Module Delivery
Module Type	secondary		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	101TAMO		
ECTS Credits	1		
SWL (hr/sem)	1		
Module Level	first stage	Semester of Delivery	
Administering Department	animal Production PLP	College	Technical Agricultural College
Module Leader	YAHYA YOUNUS MOHSIN		e-mail
			Mti.lec176.yahya@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	MASTER
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	30/12/2018	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	-	Semester	-
Co-requisites module	-	Semester	-

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<p>1- Increasing the opportunity for students to practice sound thinking methods, such as reflective, deductive, and inductive thinking.</p> <p>2- Increasing students' skills in using problem-solving methods.</p> <p>3- Helping students recognize the impact of mathematics on cultural development.</p> <p>4- Helping students to rely on themselves in academic achievement in mathematics.</p> <p>5- Developing scientific innovations and mental skills. Confirming that mathematics is the mother of science.</p>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<p>1- Creating a strong foundation for the student in the subject of pure and applied mathematics.</p> <p>2- Creating advanced thinking in understanding most mathematics topics.</p> <p>3- The student's knowledge of how to use mathematical information with other sciences and integrate them.</p> <p>4- The student will acquire as much specialized interests as possible.</p> <p>5- Enabling the student to convert practical applications into mathematical equations.</p>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p><b><u>- theoretical part</u></b></p> <p>1- Using simple methods to solve mathematical problems.</p> <p>2- Increasing the student's cognitive and scientific awareness by understanding the simple steps and methods for solving problems.</p> <p>4 - Enabling the student to use mathematical concepts, both applied and pure, to understand and solve applications</p> <p>Life of all kinds.</p> <p>4 - The student's knowledge of linking mathematical concepts to each other through informational boards or posters on the walls showing methods for a smooth solution</p>

## Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

<b>Strategies</b>	<p>The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participating in scientific conferences related to sports specialization with other universities and reviewing recent research.</p>
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## Student Workload (SWL)

الحمل الدراسي للطالب محسوب ل60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	15	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعيا	1
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غيرالمنتظم للطالب خلال الفصل	0	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غيرالمنتظم للطالب أسبوعيا	0
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>15</b>		



## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.				
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	40% (10)	7	LO #1 - #7
	Final Exam	3hr	60% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	What are matrices and what are their shapes and orders?
Week 2	Algebraic operations in matrices and their rotation
Week 3	Determinants of triangular matrices
Week 4	Determinants of quaternary matrices
Week 5	Linear equations
Week 6	Trigonometric function and the Pythagorean theorem
Week 7	Solve examples of trigonometric functions
Week 8	Exam
Week 9	Logarithmic function
Week 10	Indefinite integration
Week 11	Definite integral
Week 12	Plane coordinates
Week 13	Finding distance, speed and acceleration, general physics and engineering applications
Week 14	Applications of differentiation to find maximum and minimum values, draw ordinary functions, and determine the inflection point
Week 15	Solve the mathematical examples of the above topics
Week 16	Preparatory week before the final Exam

## Learning and Teaching Resources

### مصادر التعلم والتدريس

	Text	Available in the Library?
<b>Required Texts</b>	الرياضيات التطبيقية للمعاهد التكنولوجية 1985 يعقوب يوسف صباغة – دار التقني للطباعة والنشر	NO
<b>Recommended Texts</b>	-	-
<b>Websites</b>		

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group (0 - 49)</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	fish Disease		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP 303		
ECTS Credits	2		
SWL (hr/sem)	4		
Module Level	THREE	Semester of Delivery	
Administering Department	Animal Production department	College	Technical Agricultural College
Module Leader	Yahya N.M. ALKATEB	e-mail	<a href="mailto:Yahyanatiq2003@ntu.edu.iq">Yahyanatiq2003@ntu.edu.iq</a>
Module Leader's Acad. Title	Asst.lecturer	Module Leader's Qualification	MSc.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2021	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<b>Module Objectives</b> أهداف المادة الدراسية	<ol style="list-style-type: none"><li>1. Introducing the student to the most important basic information about the fish diseases, their diagnosis, control and treatments.</li><li>2. Teaching and training the student to know the fish diseases classification .</li></ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"><li>1. The collection of usefull information about the fish general health condition.</li><li>2. The ability of managing moderate fish diseases with minimum losses to achieve the best possible efficiency</li><li>3. The student has knowledge about the causes of common disease .</li><li>4. the students has a full knowledge of the preventing and controlling of fish diseases.</li><li>5. the students has a good experience of using drugs and supplementary treatments</li></ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><b><u>Part A - theoretical part</u></b></p> <p>Classification of fish diseases according to the etiology ,affected fish type and the seasonal of incidence . [3 hrs]</p> <p>The preventing and controlling of fish diseases. [3 hrs]</p> <p>The importance of vaccination programs and prevaccination system . [3 hrs]</p>

#### Part B - practical part

fish environment and fish managements . [9 hrs].

fish feeding and minerals requirements . [9 hrs].

Routes of diseases transmission . [9 hrs].

## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<b>The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participation in relevant scientific conferences. Scientific laboratories with other universities.</b>
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## Student Workload (SWL)

### الحمل الدراسي للطالب محسوب لـ 60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	<b>Assignments</b>	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	All
	<b>Report</b>	1	10% (10)	13	LO #5, #8 and #10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hr	10% (10)	7	LO #1 - #7
	<b>Final Exam</b>	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
<b>Week 1</b>	<b>Introduction . animals relations and animals diseases.</b>
<b>Week 2</b>	<b>Fishes enemies .</b>
<b>Week 3</b>	<b>The pathological effects on fishes growth.</b>
<b>Week 4</b>	<b>Adaptation .</b>
<b>Week 5</b>	<b>Patological signes.</b>
<b>Week 6</b>	<b>Nutritional diseases.</b>
<b>Week 7</b>	<b>Bacterial diseases.</b>
<b>Week 8</b>	<b>Fungal diseases.</b>
<b>Week 9</b>	<b>Parasitic diseases</b>
<b>Week 10</b>	<b>Controle of diseases.</b>
<b>Week 11</b>	<b>Trematoda .</b>

**Week 12 Tapeworms.**

**Week 13 Strongyloides.**

**Week 14 Protozoal diseases.**

**Week 15 Arthropoda.**

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

week	Material Covered
Week 1	Tools and instruments used in the diagnosis of fish diseases.
Week 2	Pathological signs, mucous membrane and appearance of diseased fish.
Week 3	Behavior and appearance of diseased fish.
Week 4	Diagnosis of some bacterial diseases.
Week 5	Diagnosis of some viral diseases.
Week 6	Diagnosis of some fungal diseases.
Week 7	Diagnosis of some protozoal diseases.
Week 8	Examination of some fishes infected with flagella diseases.
Week 9	Examination of some fishes infected with Ciliates diseases.
Week 10	Examination of some fishes infected with sporeidom diseases.
Week 11	Examination of some fishes infected with trematoal diseases.
Week 12	Examination of some fishes infected with tapeworms diseases.
Week 13	A scientific visit to the fish pools .
Week 14	Examination of some fishes infected with strongloides .
Week 15	Examination of some fishes infected with arthropods.

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<p style="color: purple;"><u>Fish Diseases and Medicine</u> - 1st Edition - Stephen A. Smith</p>	Yes
Websites	<p style="color: blue;"><u><a href="https://msc.uobasrah.edu.iq/index.php/2017-10-31-08-15-50/9271-2018-05-29-06-16-45.html">https://msc.uobasrah.edu.iq/index.php/2017-10-31-08-15-50/9271-2018-05-29-06-16-45.html</a></u></p>	

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required
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**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.





# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Animal Disease	Module Delivery	
Module Type	Core	<input checked="" type="checkbox"/> Theory	
Module Code	ANP 306	<input type="checkbox"/> Lecture	
ECTS Credits	2	<input checked="" type="checkbox"/> Lab	
SWL (hr/sem)	4	<input type="checkbox"/> Tutorial	
		<input type="checkbox"/> Practical	
		<input type="checkbox"/> Seminar	
Module Level	THREE	Semester of Delivery	One
Administering Department	Animal Production department	College	Technical Agricultural College
Module Leader	Yahya N.M. ALKATEB	e-mail	<a href="mailto:Yahyanatiq2003@ntu.edu.iq">Yahyanatiq2003@ntu.edu.iq</a>
Module Leader's Acad. Title	Asst.lecturer	Module Leader's Qualification	MSc.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2021	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<b>Module Objectives</b> أهداف المادة الدراسية	<ol style="list-style-type: none"><li>1. Introducing the student to the most important basic information about the animals diseases, their diagnosis, controle and treatments.</li><li>2. Teaching and training the student to know its animal diseases classification .</li></ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"><li>1. The collection of usefull information about the animal general health condition.</li><li>2. The ability of managing moderate animal diseases with minemum loses to acheve the best possible efficiency</li><li>3. The student has knowledge about the causes of common disease .</li><li>4. the students has a foll knowledge of the preveanting and controlling of animal diseases.</li><li>5. the students has a good experience of using drugs and suplemintarry treatments</li></ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><b><u>Part A - theoretical part</u></b></p> <p><b>Classification ofAnimal diseases accoding to the etiology ,affected animal and the seasonal of incedance . [3 hrs]</b></p> <p><b>The preveanting and controlling of animal diseases. [3 hrs]</b></p> <p><b>The importance of vaccenation programs and prevaccenation system . [3 hrs]</b></p>

#### Part B - practical part

**Animal housing and animal manegments . [9 hrs].**

**Animal feeding and menirals requirments . [9 hrs].**

**Routes of diseases transmetion . [9 hrs].**

## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<b>The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participation in relevant scientific conferences. Scientific laboratories with other universities.</b>
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## Student Workload (SWL)

### الحمل الدراسي للطالب محسوب ل60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعيا	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Disease definition , classification of the diseases ,methods of transmission and control.
Week 2	The Internal diseases .
Week 3	Respiratory system diseases .
Week 4	Urinary system diseases.
Week 5	Metabolic diseases.
Week 6	Infectious diseses.
Week 7	Anthrax and hemorrhagic septicemia.
Week 8	Tetanus ,foot rot , tuberculosis and pseudotuberculosis.
Week 9	Viral diseases.
Week 10	Diseases that causes abortion.
Week 11	Mastitis.

Week 12 Dermatitis.

Week 13 Parasitic diseases.

Week 14 Protozoal diseases.

Week 15 Equine diseses.

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

week	Material Covered
Week 1	Vital signes.
Week 2	Pathological signs, body temperature, mucous membrane ,pulses and lymph nodes.
Week 3	Prescapular,supramammary lymph node examination.
Week 4	body temperature examination.
Week 5	Pulses examination.
Week 6	mucous membrane examination.
Week 7	Digestive tract examination.
Week 8	Respiratory tract examination and lung auscultation.
Week 9	Urinary tract examination .
Week 10	Identifacation of veterinary druges in the farm farmacy.
Week 11	Routes of administration.
Week 12	oral administration.
Week 13	Parental administration
Week 14	Intramuscular, intravenal and intradermal injuction.
Week 15	A scientific visit to the veterinary hospital

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<p>A text book of the diseases of cattle, sheep, pigs, goats and Horses</p> <p><b>Radostitis</b>, O. M., Gay, C. C., Blood, D. C., Hinchcliff, K. W. and Constable, P.D.(2000). Veterinary medicine (). 10<sup>th</sup> ed. W.B. Saunders , Elsevier, London.</p>	Yes
Recommended Texts	<p>الامراض المشتركة بين الانسان و الحيوان</p> <p>تأليف : مارتن شكسبير</p> <p>ترجمة د.مسعود بن احمد الضبيبي</p>	No
Websites	<p><a href="https://animaldiseases.biomedcentral.com/">https://animaldiseases.biomedcentral.com/</a></p> <p><a href="https://www.nidirect.gov.uk/articles/animal-diseases">https://www.nidirect.gov.uk/articles/animal-diseases</a></p>	

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded

(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required
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**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.





# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Fish Ecology & Biology		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP203		
ECTS Credits	3		
SWL (hr/sem)	5		
Module Level	one	Semester of Delivery	
Administering Department	Animal production ANP	College	Technical Agricultural College TAMO
Module Leader	Harith.N.SH	e-mail	harithalmansour@ntu.edu.iq
Module Leader's Acad. Title	Asst. lec.	Module Leader's Qualification	Master degree
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	
Co-requisites module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Introducing the student to the general description of fish species and their differences in appearance.</li><li>2. The student learned the scientific classification of fish and understood the differences between different species.</li><li>3. Enhancing the ability to distinguish between different types of fish based on their physical and biological characteristics.</li><li>4. Understand the different ways of living of fish and how they are affected by their surrounding environment.</li><li>5. Learn about the unique adaptations that enable fish to survive and thrive in their environments.</li><li>6. Understand the role that fish play in the marine ecosystem and the importance of conserving biodiversity.</li><li>7. Develop critical thinking and scientific abilities through field study and observation.</li></ol>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1. The ability to recognize different types of fish and differentiate between them based on their physical and biological characteristics.</li><li>2. Understand the scientific classification of fish and be able to use it to identify species.</li><li>3. The ability to analyze how fish are affected by their surrounding environment and how they can adapt to that environment.</li><li>4. Ability to recognize the role that fish play in the marine ecosystem.</li><li>5. Developing scientific research skills through field study and observation.</li><li>6. Critical thinking and scientific abilities in understanding and solving environmental problems related to fish.</li><li>7. Appreciation and respect for biodiversity and the importance of preserving fish and their habitats.</li></ol>

Indicative Contents

المحتويات الإرشادية

1. General introduction to fish: definition of fish, importance of fish in the ecosystem, and biodiversity of fish.
2. Fish Taxonomy: Understand the scientific classification of fish, including class, order, family, genus, and species.
3. Types of fish and their characteristics: Studying different types of fish and distinguishing between them based on their physical and biological characteristics.
4. Aquatic environments and fish: Understand how fish are affected by their surrounding environment and how they can adapt to that environment.
5. Fish and the marine ecosystem: Study of the role that fish play in the marine ecosystem.
6. Field study and observation: Developing scientific research skills through field study and observation.
7. Conservation of fish and their habitats: Understand the importance of conserving fish and their habitats and the challenges of conserving biodiversity.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<ol style="list-style-type: none"> <li>1. Interactive Lectures: Use interactive lectures to provide basic information about fish and aquatic environments.</li> <li>2. Project-Based Learning: A project-based learning application where students design and implement research projects related to fish.</li> <li>3. Field study: Organizing study trips to local aquatic environments to observe fish in their natural habitats.</li> <li>4. Team-based learning: Encourage collaboration among students by working in teams to solve problems and conduct research.</li> <li>5. Case-Based Learning: Using real case studies to illustrate theories and concepts related to fish and aquatic environments.</li> <li>6. Self-paced learning: Encourage students to research and learn independently about fish and aquatic environments.</li> <li>7. Active Assessment: Use active assessment methods, such as interactive quizzes and class participation, to measure student progress.</li> </ol>

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	45	Structured SWL (h/w)	3



Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	30	Unstructured SWL (h/w)	2
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Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	Aquatic ecosystem, life cycle in water
Week 2	Different aquatic ecosystems, rivers, lakes, physical and chemical characteristics of water, temperature, light, pH, oxygen, salinity, turbidity, nutrients.
Week 3	A general description of the fish's body and the differences in the external appearance of fish
Week 4	Internal body parts of fish
Week 5	Classification of fish
Week 6	Biological and biological factors affecting fish
Week 7	Biological and biological factors affecting fish
Week 8	Biological and biological turbidity and its effect on fish
Week 9	Aquatic plants and their relationship with fish
Week 10	Fish feeding and categorizing fish according to their type of nutrition
Week 11	Fish reproduction, different methods of fish reproduction according to their types
Week 12	Fish migration, types of fish migration and methods of studying them

Week 13	Pollution of the aquatic environment and its impact on fish
Week 14	Methods and means of fishing
Week 15	The size of fish populations in the aquatic environment and its relationship with fishing methods

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمخت.

	Material Covered
Week 1	Devices and tools used in aquatic environmental studies
Week 2	Methods of collecting and preserving samples and studying the external body shape and external structures of the fish
Week 3	Internal anatomy and identification of the digestive, respiratory and reproductive systems of different fish
Week 4	Conducting biological measurements of fish and classifying fish
Week 5	Identifying and classifying some local Iraqi fish
Week 6	Methods for measuring salinity in water: electrical and chemical methods
Week 7	Conducting biological measurements of fish
Week 8	Methods of measuring water's physical properties, temperature, light, pH
Week 9	An experiment on the effect of salinity and pH on fish life
Week 10	Measurement of water hardness
Week 11	Examination and diagnosis of local phytoplankton
Week 12	Examination of phytoplankton and zooplankton and method of estimating their quantities
Week 13	Methods for measuring fish age (preparing scales and method for reading age)
Week 14	Measuring GST and fish fertility
Week 15	A film about the ways and means of fishing

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	انتاج الأسماك , أ.د. نبيل فهمي عبدالحكيم	Yes
Recommended Texts	الأسس العلمية لانتاج الأسماك ورعايتها , عبد الحميد محمد عبد الحميد	No
Websites		

## Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors

(50 - 100)	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فيد المعالجة)	(45-49)	More work required but credit awarded

(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required
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Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Ecology and animal behavior		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP101		
ECTS Credits	3		
SWL (hr/sem)	5		
Module Level	one	Semester of Delivery	
Administering Department	Animal production ANP	College	Technical Agricultural College TAMO
Module Leader	Ameen R. Ali	e-mail	ameen.r.ali@ntu.edu.iq
Module Leader's Acad. Title	Asst. lec.	Module Leader's Qualification	Master degree
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Principles of animal production	Semester	
Co-requisites module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Introducing the student to the importance of organizing animal communities: The student learns how to organize and balance animal communities and the role they play in preserving the environment.</li><li>2. Ways to deal with farm animals: The student learns the best ways to deal with animals on the farm, including health care, nutrition, and training.</li><li>3. The influence of environmental factors on animal behavior: The student learns how environmental factors such as weather and habitat affect animal behavior and how they can adapt to these changes.</li><li>4. The influence of genetic factors on animal behavior: The student learns how genes and heredity affect animal behavior and how this knowledge can be used in animal husbandry.</li><li>5. Ability to organize special care for each animal: The student acquires the skills necessary to provide appropriate care for each animal based on its individual needs.</li><li>6. The ability to care for animals at various stages of development: The student learns how to care for animals at all stages of their lives, from birth to old age.</li></ol>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Understanding the organization of animal communities: The student is able to understand how animal communities are organized and balanced and the role they play in environmental conservation.</li><li>2. Ability to handle farm animals: The student will be able to effectively handle animals on the farm, including health care, feeding, and training.</li><li>3. Understanding the influence of environmental factors on animal behavior: The student is able to understand how environmental factors such as weather and habitat affect animal behavior and how to adapt to these changes.</li><li>4. Understanding the influence of genetic factors on animal behavior: The student is able to understand how genes and heredity influence animal behavior and how this knowledge can be used in animal husbandry.</li><li>5. Ability to organize special care for each animal: The student is able to provide appropriate care for each animal based on its individual needs.</li><li>6. The ability to care for animals at various stages of development: The student will be able to care for animals at all stages of their lives, from birth to old age.</li></ol>

Indicative Contents

المحتويات الإرشادية

1. Introduction to animal ecology and behavior: an introduction to the basics of ecology and animal behavior and their importance in the animal world.
2. Organization of animal societies: Study the role of organization and balance in animal societies and how it can affect the environment.
3. Handling Farm Animals: Learn the best ways to handle animals on the farm, including health care, nutrition, and training.
4. The influence of environmental factors on animal behavior: The study of how environmental factors such as weather and habitat affect animal behavior and how they can adapt to these changes.
5. Influence of genetic factors on animal behavior: Understand how genes and heredity influence animal behavior and how this knowledge can be used in animal husbandry.
6. Organizing special care for each animal: Learn the skills needed to provide appropriate care for each animal based on its individual needs.
7. Evaluation and self-evaluation: Continuous assessment of progress and improvement, including self-evaluation and theoretical and practical evaluation.



## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

Strategies	<ol style="list-style-type: none"> <li>1. Project-based learning: Students can conduct research projects on animal behavior in specific environments. This can include direct observation of animals in their natural habitat or academic research.</li> <li>2. Exploration-based learning: Students can explore natural environments and observe how animals' behavior is affected by their environment. This could include field visits to national parks or nature reserves.</li> <li>3. Cooperative Learning: Students can work together in groups to study animal behavior and the environment. This could include working on research projects or group discussions.</li> <li>4. Game-based learning: Educational games can be used to help students understand how animals' behavior is affected by their environment. These can include digital games or card games.</li> <li>5. Story-based learning: Educational stories and films can be used to illustrate how animals' behavior is affected by their environment. These can include realistic or fictional stories.</li> <li>6. Research-based learning: Students can conduct independent research on specific topics related to animal ecology and behavior.</li> </ol>
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## Student Workload (SWL)

### الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا

Structured SWL (h/sem) الحمل الدراسي, س المنتظم للطالب خلال الفصل	45	Structured SWL (h/w) الحمل الدراسي, س المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي, س غيرالمنتظم للطالب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراسي, س غيرالمنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي, س الكلي للطالب خلال الفصل	75		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	Ecology. Definition, introduction, development of ecology and its divisions
Week 2	The ocean and climatic factors and their impact on the animal environment
Week 3	Heat and factors affecting it. Sources of heat
Week 4	Thermogenesis in the animal's body and the glands responsible for it
Week 5	The effect of temperature on various body activities, calories, humidity, and evaporation
Week 6	Lighting and its effect on animals and poultry
Week 7	The effect of barns on animal health, how to choose the location and direction
Week 8	Water flow in animals of hot regions and factors affecting metabolism and food intake
Week 9	Animal behavior. Definition. Introduction. Why is it studied?
Week 10	Definition of climate, acclimatization and adaptation. How do we know that an animal is suffocating?
Week 11	Physiological stability and how to regulate it
Week 12	Types of animal behavior, aggressive behavior, sexual behavior, and mechanisms of sexual behavior

Week 13	Behavior during pregnancy, childbirth, puberty, maturity and motherhood
Week 14	Periodic work to care for farm animals
Week 15	Bad habits in animal behavior and how to control them

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمخت.

	Material Covered
Week 1	How to choose a location for a cow field to reduce the harmful impact of the environment on the animal
Week 2	How to choose a poultry field, its types and directions
Week 3	How to approach, hold, and deal with the animal and the sensitive areas of the animal's body
Week 4	Watering the animal and how to distribute feed
Week 5	Recruitment of cows. Divorce of different recitations
Week 6	Sources of pollution: air, water and soil
Week 7	Use sterilizers and spray pesticides
Week 8	Bad habits and how to control them: kicking, preaching, butting
Week 9	Trimming the horns. Preventing their growth. Trimming the hooves
Week 10	Shearing the wool. Trimming the hair around the udder and foreskin
Week 11	Washing and dipping animals
Week 12	Examining the health condition of the animal, opening the mouth, vagina, measuring the temperature
Week 13	Care of newborns, inside barns, nutrition, and prevention using vaccines
Week 14	How to choose a location for a cow field to reduce the harmful impact of the environment on the animal
Week 15	How to choose a poultry field, its types and directions

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	سلوك الحيوان , احمد حماد الحسيني	Yes
Recommended Texts	book Ecology and animal behavior , Edward M. Barrows	No
Websites	<a href="http://wikipedia.org">wikipedia.org</a> علم السلوك الحيواني - ويكيبيديا	

## Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors

Success Group (50 - 100)	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فقد المعالجة)	(45-49)	More work required but credit awarded

(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required
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Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Poultry Nutrition		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP307		
ECTS Credits	3		
SWL (hr/sem)	5		
Module Level	one	Semester of Delivery	
Administering Department	Animal production ANP	College	Technical Agricultural College TAMO
Module Leader	Azhar M. Ibrahim	e-mail	ameen.r.ali@ntu.edu.iq
Module Leader's Acad. Title	Asst. lec.	Module Leader's Qualification	Ph. D.
Module Tutor	Ameen R. Ali	e-mail	ameen.r.ali@ntu.edu.iq
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Principles of animal production	Semester	
Co-requisites module	Animal Nutrition	Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Introducing the student to the importance of poultry food: The student learns about the vital role that food plays in the health and productivity of poultry.</li><li>2. How to calculate energy, protein, vitamins, and nutrients: The student learns how to calculate the appropriate amounts of energy, protein, vitamins, and other nutrients needed to form a balanced diet for poultry.</li><li>3. Ability to supervise poultry fields in the field: The student acquires the skills necessary to directly supervise poultry fields and ensure that the poultry receives the appropriate food.</li><li>4. Giving recommendations for formulating balanced diets: The student learns how to give practical recommendations for formulating balanced diets that meet the nutritional needs of poultry.</li></ol>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Understanding the basics of poultry nutrition: The student should be able to explain the basics related to poultry nutrition including proteins, vitamins, minerals and energy.</li><li>2. Ability to design and evaluate diets: The student must be able to design and evaluate balanced diets for poultry based on their nutritional needs.</li><li>3. Ability to manage feeding programs: The student must be able to manage and optimize feeding programs for poultry based on specific conditions.</li><li>4. Ability to analyze feeding problems and suggest solutions: The student must be able to analyze problems associated with poultry nutrition and suggest practical solutions.</li><li>5. Ability to research and continuously learn: The student must be able to research new and current information related to poultry nutrition and continuously learn in this field.</li></ol>



Indicative Contents

المحتويات الإرشادية

1. Introduction to poultry nutrition: an introduction to the importance of nutrition in the health and productivity of poultry.
2. Basic nutrients: A detailed explanation of proteins, carbohydrates, fats, vitamins, minerals, and water and their importance in poultry nutrition.
3. Designing balanced diets: How to calculate the appropriate amounts of nutrients to form a balanced diet.
4. Nutrition according to growth stages: Different feeding recommendations for poultry according to the different stages of growth (chickens, growth, production).
5. Nutrition in special conditions: Nutrition in conditions of heat stress, diseases, and other special circumstances.
6. Nutrition Management: How to manage and optimize nutrition programs to increase productivity and reduce cost.
7. Analyzing problems associated with nutrition: How to analyze problems associated with poultry nutrition and suggest practical solutions.

## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

Strategies	<ol style="list-style-type: none"> <li>1. Interactive lectures: Traditional lectures can be used with interactive techniques such as questions and answers and group discussions to enhance understanding.</li> <li>2. Project-based learning: Students can apply what they have learned in real-life projects related to poultry nutrition, such as designing a balanced diet or analyzing a feeding problem.</li> <li>3. Case-based learning: Using real study cases to illustrate concepts and principles related to poultry nutrition.</li> <li>4. Self-learning and scientific research: Encouraging students to research and self-learn to stay up to date with the latest research and developments in the field of poultry nutrition.</li> <li>5. Hands-on learning: Opportunities for hands-on learning, such as field visits to poultry farms or laboratories, can be very valuable.</li> <li>6. Continuous evaluation: Use periodic and ongoing evaluations to measure progress and identify areas that may need additional review or enhancement.</li> </ol>
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## Student Workload (SWL)

### الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا

Structured SWL (h/sem) الحمل الدراسي، س المنتظم للطالب خلال الفصل	45	Structured SWL (h/w) الحمل الدراسي، س المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي، س غيرالمنتظم للطالب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراسي، س غيرالمنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي، س الكلي للطالب خلال الفصل	75		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	The concept of nutrition: basic nutrients and their functions in the bird's body
Week 2	Energy: The concept of energy
Week 3	forms of energy, measurement of energy,
Week 4	fate of energy in the bird's body
Week 5	Protein: The concept of protein,
Week 6	classification of proteins, amino acids, their definition, division, and importance. Poultry needs for protein
Week 7	Fats: their definition, general properties, classification of fatty acids, their properties, and importance
Week 8	Vitamins: their definition, nutritional classification, the effect of their deficiency on birds, and their functions
Week 9	Mineral elements: their definition, functions of mineral elements in the bird's body, nutritional classification of mineral elements, symptoms of calcium and phosphorus deficiency with vitamin D.
Week 10	Interactions affecting the nutritional needs of poultry: nutrition and genetics, nutrition and diseases, nutrition and egg quality.
Week 11	Nutritional and non-nutritional requirements in poultry diets
Week 12	Feeding poultry in hot regions
Week 13	Poultry food fractionation, methods used in feed inspection
Week 14	Forms of feed and methods of feeding poultry
Week 15	Non-traditional feeds used in poultry feeding and how to treat them

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمخت.

	Material Covered
Week 1	Feed materials used in feeding poultry, divided according to sources of energy, plant and animal protein, and sources of vitamins and minerals (identification of primary feed materials)
Week 2	Energy calculations:
Week 3	Calculations of energy needs in poultry (laying chickens and broilers),
Week 4	basic net energy calculations
Week 5	Protein: Calculations of the daily protein requirements for laying hens and broilers
Week 6	Protein: Calculations of the daily protein requirements for laying hens and broilers
Week 7	Feed conversion efficiency:
Week 8	Calculations of feed conversion efficiency for broilers and laying hens, factors affecting feed conversion efficiency
Week 9	Calculating the needs of calcium and phosphorus and calculating the fodder needs of poultry for laying hens and broilers
Week 10	Composing poultry diets: balancing them with energy, protein, amino acids, nutrients, and vitamins. Using a calculator to formulate the diet. Mixing the composition of the diet mechanically or manually.
Week 11	A visit to a feed factory
Week 12	Practical examples of calculating feed cost
Week 13	Toxins and feed storage: aflatoxins, factors affecting the formation of mycotoxins, and feed storage methods
Week 14	Diseases caused by malnutrition
Week 15	Nutritional requirements of turkeys, ducks and geese

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	اساسيات تغذية دواجن , د. إسماعيل خليل ابراهيم	Yes
Recommended Texts	Poultry Nutrition , Vincenzo Tufarelli	No
Websites	<a href="http://arabicpoultryedu.com">تغذيته الدجاج- الطاقه و البروتين و الاحماض - الموقع العربي التعليمي للدواجن (arabicpoultryedu.com)</a>	

## Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
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Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فيد المعالجة)	(45-49)	More work required but credit awarded

(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required
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Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Poultry production techniques		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP103		
ECTS Credits	3		
SWL (hr/sem)	5		
Module Level	one	Semester of Delivery	
Administering Department	Animal production ANP	College	Technical Agricultural College TAMO
Module Leader	Ameen R. Ali	e-mail	ameen.r.ali@ntu.edu.iq
Module Leader's Acad. Title	Asst. lec.	Module Leader's Qualification	Master degree
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Principles of animal production	Semester	
Co-requisites module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Use of modern technology in teaching and research.</li><li>2. Preparing students to work in poultry production companies.</li><li>3. Providing scientific advice to companies and small projects.</li><li>4. Participation in conferences to follow the latest research and technologies.</li><li>5. Participation in local and international exhibitions.</li><li>6. Improving the economics of poultry production to face the challenges of globalization.</li></ol>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1. Understanding modern technology: Students will gain a deep understanding of the modern technology used in the poultry industry.</li><li>2. Ability to produce efficiently: Students will learn how to achieve high efficiency in converting food materials and improving growth rate.</li><li>3. Genetic improvement: Students will gain knowledge of the genetic processes that help improve poultry products.</li><li>4. Ability to handle challenges: Students will learn how to deal with challenges associated with increasing demand for poultry products.</li><li>5. Ability to deal with diseases: Students will learn how to detect disease and find sick birds before the entire flock is affected.</li><li>6. Ability to improve food safety: Students will gain the necessary knowledge to improve the detection of Salmonella, Campylobacter, and E. coli.</li><li>7. Ability to improve production: Students will learn how to increase the yield of meat or eggs.</li></ol>



Indicative Contents

المحتويات الإرشادية

1. Advanced technology use: Focus is on how to use advanced technology in poultry production.
2. Genetic improvement and nutrition: The study of how dietary components interact with genes and their products.
3. Disease control: Focus is on the ability to detect disease and find sick birds before the entire flock is affected.
4. Increasing production: Focus is on how to increase the yield of meat or eggs.
5. Quality control of production: Focus is on how to control the quality of animal production.
6. Advancement in technology: Focus is on how to use advancements in technology to achieve higher levels in breeding and efficiency.
7. Application of advanced technology: Focus is on how to apply advanced technology in poultry production.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<ol style="list-style-type: none"> <li>1. Active Learning: Students are encouraged to actively participate in the learning process through practical experiments, group projects, and interactive activities.</li> <li>2. Project-Based Learning: Application projects are assigned that require students to apply the concepts and skills they have learned in a real-world context.</li> <li>3. Research-Based Learning: Students are encouraged to conduct their own research and explore topics of interest to them.</li> <li>4. Collaborative Learning: Students are encouraged to work together in groups to solve problems and complete projects.</li> <li>5. Self-Directed Learning: Students are encouraged to take responsibility for their own learning and develop independent learning skills.</li> <li>6. Technology-Based Learning: Technology is used as a tool to enhance learning and provide access to resources and information.</li> <li>7. Continuous Assessment: Students are continuously assessed to track progress and identify areas that may need additional support.</li> <li>8. Case-Based Learning: Case studies and realistic scenarios are used to enhance students' understanding of topics and apply knowledge in real-world contexts.</li> <li>9. Experiential Learning: Students are encouraged to benefit from practical experiences, such as field training and practical training.</li> <li>10. Discussion-Based Learning: Students are encouraged to participate in group discussions to enhance critical thinking and effective communication.</li> </ol>

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا			
Structured SWL (h/sem) الحمل الدراي, س المنتظم للطالب خلال الفصل	45	Structured SWL (h/w) الحمل الدراي, س المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراي, س غيرالمنتظم للطالب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراي, س غيرالمنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراي, س الكلي للطالب خلال الفصل	75		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to poultry science and its branches, local chicken, the poultry industry in Iraq and the factors affecting it
Week 2	Origin and classification of poultry, external body parts of the bird, methods of classifying poultry (broiler breeds and egg production)
Week 3	Parts of the digestive, respiratory, and circulatory systems in poultry
Week 4	Parts of the male and female reproductive and urinary systems in poultry
Week 5	Skeleton, muscles, skin and feathers in poultry
Week 6	Poultry production in hot and cold climates. Production of broilers and laying hens
Week 7	Poultry production in hot and cold climates. Production of broilers and laying hens
Week 8	Glands and hormones and their relationship to egg production, egg production diagram
Week 9	Problems related to bird behavior

Week 10	The effect of nutritional relations on poultry production (meat and eggs)
Week 11	Dealing with the products of poultry farming and ways to benefit from them

Week 13	Poultry meat preparation and marketing operations
Week 14	A visit to the poultry fields (broilers and eggs) and the slaughterhouse
Week 15	Breeding and producing turkeys, ducks, geese, and guinea fowl, each type

### Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمخت.

	Material Covered
Week 1	Identifying and comparing types of foreign and local chicken, advantages and disadvantages of local chicken
Week 2	Identifying and studying the external body parts, taking measurements of the body parts, and how to catch the bird
Week 3	Anatomy of the digestive and respiratory systems, circulation, and identification of their parts
Week 4	Anatomy of the male reproductive system, female reproductive system, and urinary system, identifying its parts, measuring its length, and seeing the egg formation sites.
Week 5	Anatomy of the skeleton, identification of muscles, and study of the structure of the chicken feather
Week 6	Heat stress and its impact on the production process and ways to overcome heat stress
Week 7	Completion
Week 8	Diagnosis of laying hens, their specifications
Week 9	The process of egg formation in chickens, the egg-laying chain, sperm production in males, calculations in egg production, factors affecting production.
Week 10	Techniques for eliminating sleeplessness in chickens, causes of sleeplessness, factors affecting the decline in egg production
Week 11	Broiler production
Week 12	Calculating the percentage of clearance and recovery, and the factors affecting it
Week 13	Pecking and predation, their effect on egg production and fertility, their causes, and methods of treatment
Week 14	The effect of anti-metabolic substances on egg and meat production
Week 15	A visit to a typical poultry field

### Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	تربية الدواجن ورعايتها , د. سامي علام	Yes
Recommended Texts	Textbook of Poultry Production and Management, Dr. Girrag Goyal	No
Websites	<a href="https://www.aalameldawagen.com/ar/articles/%D8%AA%D8%B1%D8%A8%D9%8A%D8%A9-%D8%AF%D9%88%D8%A7%D8%AC%D9%86/%D8%A7%D9%84%D8%AA%D9%82%D9%86%D9%8A%D8%A7%D8%AA-%D8%A7%D9%84%D8%AD%D8%AF%D9%8A%D8%AB%D8%A9-">https://www.aalameldawagen.com/ar/articles/%D8%AA%D8%B1%D8%A8%D9%8A%D8%A9-%D8%AF%D9%88%D8%A7%D8%AC%D9%86/%D8%A7%D9%84%D8%AA%D9%82%D9%86%D9%8A%D8%A7%D8%AA-%D8%A7%D9%84%D8%AD%D8%AF%D9%8A%D8%AB%D8%A9-</a>	

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%D8%A7%D9%84%D9%88%D8%A7%D9%82%D8%B9-  
%D9%88%D8%A7%D9%84%D9%85%D8%A3%D9%85%D9%88%D9%84/

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فقد المعالجة)	(45-49)	More work required but credit awarded

(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required
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Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Laboratories Techniques		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP 152		
ECTS Credits	2		
SWL (hr/sem)	4		
Module Level	THREE	Semester of Delivery	
Administering Department	Animal Production department	College	Technical Agricultural College
Module Leader	Yahya N.M. ALKATEB	e-mail	<a href="mailto:Yahyanatiq2003@ntu.edu.iq">Yahyanatiq2003@ntu.edu.iq</a>
Module Leader's Acad. Title	Asst.lecturer	Module Leader's Qualification	MSc.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2021	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	



## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<b>Module Objectives</b> أهداف المادة الدراسية	<ol style="list-style-type: none"><li>1. Introducing the student to the most important basic information about the laboratories , their rules and equipments .</li><li>2. Teaching and training the student to know laboratories tests and their classification .</li><li>3. Introducing the student to the most important basic experience of handling and uses of laboratory tools.</li></ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"><li>1. The collection of usefull information about the animal general health condition.</li><li>2. The ability of collecting samples from animals with minemum damages.</li><li>3. The student has knowledge about the samples , thier preservation , transporting and store .</li><li>4. the students has a full knowledge of the previnting and controling of contamination and samples wasting .</li><li>5. the students has a good experience of using laboratory equipments and tooloes.</li></ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><u>Part A - theoretical part</u></p> <p>Classification of samples accoding to there physical and chemical properties and origins. [3 hrs]</p> <p>The principles of occupational safty. [3 hrs]</p> <p>The importance of laboratory test and results in the diagnosis of diseases. [3 hrs]</p>

#### Part B - practical part

Laboratory principles and procedures . [9 hrs].

Self safety requirments . [9 hrs].

Sterelization and disinfection. [9 hrs].

## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<b>The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participation in relevant scientific conferences. Scientific laboratories with other universities.</b>
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## Student Workload (SWL)

### الحمل الدراسي للطالب محسوب لـ 60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Identify the most common and used laboratory tools and equipment
Week 2	Use laboratory tools correctly
Week 3	Preparing solutions for cleaning glassware and tools and how to use them
Week 4	Types of blenders used in the laboratory, specifications of each type and its suitability for samples
Week 5	Preparing and calibrating various standard chemical solutions
Week 6	Preparing and calibrating various standard chemical solutions
Week 7	Dealing with various chemicals and methods of preserving them in the laboratory
Week 8	Operating, maintaining and maintaining the distilled water device
Week 9	Operating the various types of sensitive scales, maintaining and calibrating them
Week 10	Operating and maintaining various types of microscopes
Week 11	Operating and maintaining the pH and E.C measuring devices and maintaining the electrodes
Week 12	Maintaining food analysis devices
Week 13	Use and calibrate the Spectro photometer
Week 14	Operating and maintaining the Flam photometer
Week 15	Operating and maintaining the atomic absorption device

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

week	Material Covered
Week 1	Identify the most common and used laboratory tools and equipment
Week 2	Use laboratory tools correctly
Week 3	Preparing solutions for cleaning glassware and tools and how to use them
Week 4	Types of blenders used in the laboratory, specifications of each type and its suitability for samples
Week 5	Preparing and calibrating various standard chemical solutions
Week 6	Preparing and calibrating various standard chemical solutions
Week 7	Dealing with various chemicals and methods of preserving them in the laboratory
Week 8	Operating, maintaining and maintaining the distilled water device
Week 9	Operating the various types of sensitive scales, maintaining and calibrating them
Week 10	Operating and maintaining various types of microscopes
Week 11	Operating and maintaining the pH and E.C measuring devices and maintaining the electrodes
Week 12	Maintaining food analysis devices
Week 13	Use and calibrate the Spectro photometer
Week 14	Operating and maintaining the Flam photometer
Week 15	Operating and maintaining the atomic absorption device

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Veterinary laboratory medicine Clinical biochemistry and haematology Second edition Morag G. Kerr	Yes
Recommended Texts	Color atlas of hematology practical microscopic and clinical diagnosis Harald theml ,m.d.	No
Websites	<a href="https://www.bls.gov/ooh/healthcare/clinical-laboratory-technologists-and-technicians.htm">https://www.bls.gov/ooh/healthcare/clinical-laboratory-technologists-and-technicians.htm</a>	

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required
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**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.



# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Genital diseases and obstetrics	Module Delivery	
Module Type	Core	<input checked="" type="checkbox"/> Theory	
Module Code	ANP 406	<input type="checkbox"/> Lecture	
ECTS Credits	2	<input checked="" type="checkbox"/> Lab	
SWL (hr/sem)	4	<input type="checkbox"/> Tutorial	
		<input type="checkbox"/> Practical	
		<input type="checkbox"/> Seminar	
Module Level	THREE	Semester of Delivery	One
Administering Department	Animal Production Techniques	College	Technical Agricultural College of Mosul
Module Leader	Dr. Abd Al-Bar Al-Farha	e-mail	<a href="mailto:dr.abdalbar@ntu.edu.iq">dr.abdalbar@ntu.edu.iq</a>
Module Leader's Acad. Title	Asst. Proffessor	Module Leader's Qualification	PhD
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2021	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<b>Module Objectives</b> أهداف المادة الدراسية	<p>تعريف الطالب بأهمية الحمل ومدته واهم الامراض المصاحبة له وامراض الجنين وكذلك ظاهرة الاجهاض ويكون الطالب قادرا على التعامل مع حالات عسر الولادة ومعالجة الامراض التناسلية المختلفة .</p> <ol style="list-style-type: none"> <li>1. Introducing the student to the most important basic information about obstetrics, abortion and causes of abortion, other reproductive diseases, their diagnosis, control and treatments.</li> <li>2. Teaching and training the student to know the mechanism of obstetrics in farm animals, dystocia and manipulation techniques .</li> </ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> <li>1. The student can be able to describe various genital disorders and obstetrics of farm animals.</li> <li>2. The student can be able to diagnose, control and treat different genital diseases.</li> </ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><b><u>Part A - theoretical part(30hrs) 2 hrs/each lecture)</u></b></p> <ol style="list-style-type: none"> <li>1- Introduction to Venereal Diseases and Physiology of the Female Reproductive System</li> <li>2- Infectious venereal diseases</li> <li>3- Brucellosis (Malta fever)</li> <li>4- Vaginitis is another disease of the female reproductive system</li> <li>5- Hormonal disorder that leads to infertility</li> <li>6- Estrus cycle failure or lack of estrus</li> <li>7- Nutritional and genetic causes of infertility</li> <li>8- Pathological causes of infertility affecting the ovaries</li> <li>9- Recurrence of estrus in cows and problems of breeding and management</li> <li>10- Physiology of sheep reproduction Infertility in sheep Anatomical causes</li> <li>11- Causes, changes and pathological pests affecting the reproductive system of sheep</li> <li>12- Introduction to veterinary childbirth and obstetric anatomy</li> <li>13- Childbirth signs of near-birth</li> <li>14- Time of intervention in natural childbirth</li> <li>15- Dystocia, causes of dystocia</li> </ol>

Part B - practical part (30 hrs)

1. Obstetric operations to correct the position of the fetus (6 hrs)
2. Wounds, bruises and diseases for the postpartum period (4 hrs)
3. Metabolic or nutritional diseases affecting animals (4 hrs)
4. Postpartum diseases and injuries Placental retention (4 hrs)
5. Diseases and injuries after Infertility (4 hrs)
6. Physiology of male reproduction (4 hrs)
7. Diseases and accidents that occur during pregnancy, Abortion (4 hrs)



## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<b>The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participation in relevant scientific conferences. Scientific laboratories with other universities.</b>
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## Student Workload (SWL)

### الحمل الدراسي للطالب محسوب ل60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعيا	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غيرالمنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غيرالمنتظم للطالب أسبوعيا	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	<b>Assignments</b>	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	All
	<b>Report</b>	1	10% (10)	13	LO #5, #8 and #10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hr	10% (10)	7	LO #1 - #7
	<b>Final Exam</b>	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
<b>Week 1</b>	<b>Introduction to Venereal Diseases and Physiology of the Female Reproductive System</b>
<b>Week 2</b>	<b>Infectious venereal diseases</b>
<b>Week 3</b>	<b>Brucellosis (Malta fever)</b>
<b>Week 4</b>	<b>Vaginitis is another disease of the female reproductive system</b>
<b>Week 5</b>	<b>Hormonal disorder that leads to infertility</b>
<b>Week 6</b>	<b>Estrus cycle failure or lack of estrus</b>
<b>Week 7</b>	<b>Nutritional and genetic causes of infertility</b>
<b>Week 8</b>	<b>Pathological causes of infertility affecting the ovaries</b>
<b>Week 9</b>	<b>Recurrence of estrus in cows and problems of breeding and management</b>
<b>Week 10</b>	<b>Physiology of sheep reproduction Infertility in sheep Anatomical causes</b>
<b>Week 11</b>	<b>Causes, changes and pathological pests affecting the reproductive system of sheep</b>
<b>Week 12</b>	<b>Introduction to veterinary childbirth and obstetric anatomy</b>
<b>Week 13</b>	<b>Childbirth signs of near-birth</b>
<b>Week 14</b>	<b>Time of intervention in natural childbirth</b>
<b>Week 15</b>	<b>Dystocia, causes of dystocia</b>

## Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

week	Material Covered
Week 1	Obstetric operations to correct the position of the fetus
Week 2	Obstetric operations to correct the position of the fetus
Week 3	Wounds, bruises and diseases for the postpartum period
Week 4	Wounds, bruises and diseases for the postpartum period
Week 5	Metabolic or nutritional diseases affecting animals
Week 6	Metabolic or nutritional diseases affecting animals
Week 7	Metabolic or nutritional diseases affecting animals
Week 8	Metabolic or nutritional diseases affecting animals
Week 9	Metabolic or nutritional diseases affecting animals
Week 10	Postpartum diseases and injuries Placental retention
Week 11	Postpartum diseases and injuries Placental retention
Week 12	Postpartum diseases and injuries Placental retention
Week 13	Physiology of male reproduction
Week 14	Diseases and accidents that occur during pregnancy Abortion
Week 15	Diseases and accidents that occur during pregnancy Abortion

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<a href="#">Obstetrics</a> and Reproductive Disease	Yes
Websites		

## Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
	A - Excellent	امتياز	90 - 100	Outstanding Performance

<b>Success Group (50 - 100)</b>	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.



# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Plane Surveying		Module Delivery
Module Type	secondary		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	TAMO 103		
ECTS Credits	2		
SWL (hr/sem)	4		
Module Level	first stage	Semester of Delivery	
Administering Department	Animal production techniques	College	Technical Agricultural College
Module Leader	YAHYA YOUNUS MOHSIN	e-mail	Mti.lec176.yahya@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	MASTER
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	30/12/2018	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	-	Semester	Two
Co-requisites module	-	Semester	-

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<p>1- Introducing the student to the general basics of surveying and its structure so that he has the ability to manage a technician Surveying engineers working on civil projects.</p> <p>2- Introducing the student to using some space devices such as the learning device (level) and a device Theodolite (this is so that he can do the small surveying work he needs). In civil engineering, such as measuring levels or measuring a specific angle.</p> <p>3- Giving the student priorities about advanced surveys, such as space surveying and measuring coordinates, and this is possibleThe student is in good health.</p> <p>4- Developing it in the future through courses or study until it is Professional in space and work space.</p>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<p>1. Introducing the student to using new and modern techniques in surveying for the sake of accurate measurements.</p> <p>2. The student must have knowledge of measurement systems and units of measurement used.</p> <p>3- Teaching the student how to use surveying and integrate it with other sciences in areas of life.</p>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p><b><u>Part A - theoretical part</u></b></p> <p>1-Setting units of measurement and their conversions.</p> <p>2- Full knowledge of setting up surveying equipment in the laboratory before going to work.</p> <p>3- Preparing the record of the project's surveying before work.</p> <p>4- The surveyor must be fully aware of downloading information into the register</p> <p><b><u>Part B - practical part</u></b></p> <p>1- Choosing the appropriate conditions and the appropriate time for surveying work to avoid wind, high temperature or rain in order to reduce the effects on the accuracy of the measurement.</p> <p>2- Choosing the appropriate area or place to install the surveying equipment.</p>

	<p>3- Training on devices to increase practical experience.</p> <p>4- We advise students to make continuous visits to various state departments, such as the municipality, agriculture, and water resources, to learn about work mechanisms in various fields</p>
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<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
Strategies	<p>The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participation in relevant scientific conferences. Scientific laboratories with other universities.</p>

<b>Student Workload (SWL)</b> الحمل الدراسي للطالب محسوب لـ 60 ساعة			
<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	60	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	4
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	1	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	60		



## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Devices and tools used in measurement
Week 2	Types of units of measurement and their conversions
Week 3	Drawing scale
Week 4	Guidance and measurement
Week 5	Establishing and lowering columns
Week 6	Obstacles and obstacles in measuring distances
Week 7	The necessary corrections in measuring distances
Week 8	Wiping with chain and tape
Week 9	Wiping with a flat board
Week 10	Leveling machines and their equipment
Week 11	Settlement or budget
Week 12	Topographic maps and their uses
Week 13	Surveying with a compass
Week 14	Theodolite device
Week 15	Water area
Week 16	Preparatory week before the final Exam

Delivery Plan (weekly practical)	
المنهاج الاسبوعي العملي	
week	Material Covered
Week 1	Identify the chain, tape, auxiliary measuring tools, and method of measuring in the field
Week 2	Solve specialized exercises with units of length, volume, and angles
Week 3	Solve examples of drawing scale
Week 4	Mechanism for adjusting guidance, measurement, and setting points
Week 5	Establishing and lowering columns via chain and pole in the field
Week 6	Test questions about the different methods and obstacles in measuring distances
Week 7	Test questions for the necessary corrections in measuring distances
Week 8	Practical field survey using chain and tape survey
Week 9	Knowing the mechanism of erecting a level board with high accuracy and identifying the auxiliary tools
Week 10	Adjust the leveling mechanisms with high accuracy in the field
Week 11	Methods of calculating levels practically
Week 12	Methods of defining contours or shoulders with their example
Week 13	Monitoring or surveying with a compass in practice, with examples
Week 14	Installing the theodolite device and taking survey readings
Week 15	Mathematical examples of different methods specialized in water area
Week 16	Exam

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	ياسين عبيد احمد (0991)، المساحة الهندسية، وزارة التعليم العالي والبحث العلمي، جامعة البصرة، كلية الهندسة، البصرة، العراق ..زياد عبد الجبار البكر. (2112) المسح الهندسي والكادسترائي، بغداد	no
Recommended Texts	هيئة المعاهد الفنية العراقية / كتاب المهندس إبراهيم داوود علوان الموسسة العامة للتعليم الفني والتدريب المهني في المملكة العربية السعودية / مساحة مدن 102	yes
Websites		

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group (0 - 49)</b>	<b>FX - Fail</b>	راسب (فقد المعالجة)	(45-49)	More work required but credit awarded
	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Animal Prod. Machine		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP 351		
ECTS Credits	2		
SWL (hr/sem)	4		
Module Level	the third	Semester of Delivery	
Administering Department	animal Production PLP	College	Technical Agricultural College
Module Leader	YAHYA YOUNUS MOHSIN	e-mail	Mti.lec176.yahya@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	MASTER
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	30/12/2018	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Fodder crops and pastures	Semester	Two
Co-requisites module	-	Semester	-

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> <li>1. Introducing the student to the most important basic information about the new technologies used in mechanizing animal production, methods of using them, and choosing the best ones.</li> <li>2. Teaching and training students to use machines to mechanize animal production.</li> <li>3. Teaching and training the student to choose the type of machine used in agricultural production</li> </ol>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> <li>1. Using new and modern technologies to control humidity, heat and cold inside barns and poultry halls.</li> <li>2. The possibility of managing agricultural and livestock activity in dry farming areas in a way that achieves the best possible efficiency through modern agricultural mechanization</li> <li>3. Developing means, equipment, and machines that are appropriate to the nature of dry areas for producing basic animal feed.</li> <li>4. The student must have knowledge of modern agricultural mechanization systems, including dairy farms, slaughterhouses, and fodder delivery mechanisms.</li> <li>5- Teaching the student how to use mechanization in the field of animal production in order to develop skills and increase productivity.</li> </ol>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p><b><u>Part A - theoretical part</u></b></p> <ol style="list-style-type: none"> <li>1-Control the environmental conditions inside barns and poultry halls.</li> <li>2-How to deliver water to the location of the animals.</li> <li>3- The agricultural tug, its parts, types, and its rotation in the field.</li> <li>4- Methods of harvesting and collecting fodder of all types, dry and wet.</li> <li>5-Mechanical milking of cows .</li> </ol> <p><b><u>Part B - practical part</u></b></p> <ol style="list-style-type: none"> <li>1- The mechanism for controlling the temperature of the barn in terms of heat and cooling and providing ventilation through the correct operation of air extractors of all types.</li> <li>2- Choosing the appropriate water pumps to deliver water from the source to the barn and methods for storing it.</li> <li>3- Teaching workers and technicians to drive tractors in agricultural fields.</li> <li>4- Manufacture of fodder and methods of harvesting and assembling fodder of all types, dry and wet.</li> <li>5- Training on mechanical milking and parlor management in terms of organization and cleanliness.</li> <li>6- We advise students to make continuous visits to laboratories, slaughterhouses, automated milking parlors, animal halls and barns, in cooperation with the Ministry of Agriculture and the private sector.</li> </ol>

## Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

### Strategies

The necessity of visiting to gain experience from others. Obtaining new scientific information in the field of scientific research (videos). Practical training in the field. Access to modern scientific literature. Participation in relevant scientific conferences. Scientific laboratories with other universities.

## Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ 60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	60	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	4
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	0	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	0
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	60		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Agricultural buildings used for animal production and how to construct them
Week 2	Controlling environmental conditions inside animal pens
Week 3	Providing water to animal pens for daily consumption and storage
Week 4	Pumps used in animal production, their types and sizes, and choosing the best one for the project
Week 5	Agricultural tractors, their sizes and operating mechanisms
Week 6	Mechanisms for harvesting and collecting fodder in the field
Week 7	Mechanization of production and storage of gum as animal feed
Week 8	Exam
Week 9	Automated milking equipment and systems
Week 10	Mechanization of cleaning and disposal of animal waste
Week 11	Technological methods for crushing fodder for animals
Week 12	Mechanization of wool shearing for sheep
Week 13	Hatcheries and egg packing equipment
Week 14	Animal slaughter equipment (sheep, cows)
Week 15	How to benefit from animal waste and slaughterhouse waste as animal fertilizer that is beneficial to plants
Week 16	Preparatory week before the final Exam

Delivery Plan (weekly practical)	
المنهاج الاسبوعي العملي	
week	Material Covered
Week 1	Conditions that must be followed when designing agricultural buildings
Week 2	Mechanism to control temperature, humidity, and ventilation for barns
Week 3	Components of the water supply network
Week 4	Pump maintenance, cleaning and installation
Week 5	Teaching the student to drive agricultural tractors in the field
Week 6	Regulations for various types of conveyors
Week 7	Maintaining and adjusting feed baling and handling equipment before work
Week 8	Exam
Week 9	Preparing cows for automatic milking and maintaining the parlor
Week 10	Transport vehicles, their types, and ways to connect them to agricultural tractors
Week 11	Grinders and feed mixers and their working mechanism
Week 12	Cleaning, preparing and sterilizing the sheep before shearing the wool
Week 13	Visiting a model field for raising poultry and producing table eggs and learning about the work of hatcheries
Week 14	Visit to typical slaughterhouses and learn the correct methods of slaughtering animals
Week 15	Types of mechanical composting mechanisms for animal waste and how they work
Week 16	Exam

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	كتاب مكننة الإنتاج الحيواني / د. محمد جاسم النعمة كتاب معدات مكننة الإنتاج الحيواني / د. لطفى حسين	Yes
Recommended Texts	ملزمة معدات مكننة الإنتاج الحيواني تأليف محمود حسن رفيق وعثمان مؤيد	No
Websites		



## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group (0 - 49)</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	The agricultural economy		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory
Module Code	Tamo151		<input type="checkbox"/> Lecture
ECTS Credits	2		<input type="checkbox"/> Lab
SWL (hr/se3m)	2		<input type="checkbox"/> Tutorial
			<input type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	1	Semester of Delivery	1
Administering Department	Animal production	College	Technical Agricultural College
Module Leader	Doaa Qasim Sabri	e-mail	dqasm0478.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Economics of animal production	Semester	1
Co-requisites module	Field management	Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<p>1- Introducing the student , the relationship between resources and production, and the agricultural production function. 2- Analyzing the costs of agricultural production and applying the rules of optimal use of resources.</p> <p>3- Entering the agricultural sector with distinguished efficiency through participation in government projects And the labor market</p>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1- The importance of studying the relationship between agricultural resources and agricultural production and practical applications of production theory in the agricultural sector,</li><li>2- studying the costs of agricultural production</li><li>3- studying the efficiency of using resources in the agricultural sector.</li><li>4- Agricultural marketing is an achievement of commercial activities that ensure the flow of goods and services from a point of emergence Crops and products until they reach the consumer.</li><li>5- - Organizing and simplifying many different production activities so that they become routine work that the worker performs easily It saves time and effort</li><li>6 - Transferring scientific knowledge and scientific progress from the theoretical field to the field of application and work and benefiting from it in Getting work done</li></ol>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p>The concept of general economics. The concept of agricultural economics. Branches of agricultural economics. Economics of agricultural production. Economics of animal production.. [2 hrs]</p> <p>Demand. The concept of demand. Law of demand. Shifting demand curve curves. Factors affecting demand. Elasticity of demand. Factors affecting elasticity of demand( 4 hrs]</p> <p>Presentation. Presentation concept. Shifts of the supply curve. Factors that affect supply. Elasticity of supply. Factors that affect the elasticity of supply. Market equilibrium.. [4 hrs]</p> <p>Law of substitution and substitution. Properties of equal product curves. Isocosts. Isocost curves. Cost minimization criteria. Examples of substitution and substitution .. [4hrs].</p>

	<p>Production. Production concept. Factors of production. Production function. Types of production functions. Constant production function. Bidding production function. Increasing production function. Economic derivatives of the production function. [4 hrs].</p> <p>Production costs. Types of production costs. Fixed costs. Variable costs. Total costs. Types of average costs. Average fixed costs. Average variable costs. Average total costs. Marginal cost. The relationship between unit curves . [6 hrs].</p> <p>Mathematical questions about costs. Profit and loss. Mathematical questions about profit and loss. [6 hrs].</p>
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<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	<p>Teaching and learning methods</p> <p>Providing students with the basics and lectures related to the subject. Using slide presentation methods for the purpose of conveying the information in a more clear way. Urging students to go to the library while asking them to do scientific reports on topics related to bioresistance.</p>

<b>Student Workload (SWL)</b> الحمل الدراسي للطالب محسوب لـ 30 ساعة			
<b>Structured SWL (h/sem)</b>	25	<b>Structured SWL (h/w)</b>	7
الحمل الدراسي المنتظم للطالب خلال الفصل			



<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطلاب خلال الفصل	5	<b>Unstructured SWL (h/w)</b>	6
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<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>30</b>
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	The concept of general economics
Week 2	Economics of agricultural production
Week 3	The Demand and Law of demand
Week 4	Supply and Law Supply
Week 5	The concept of production and production factors
Week 6	production functio
Week 7	Exam
Week 8	Substitution and replacement
Week 9	Production costs
Week 10	Profit and loss
Week 11	Agricultural policy

Week 12	Agricultural Income
Week 13	The economic efficiency of the farm
Week 14	Extinction
Week 15	Exam
Week 16	Preparatory week before the final Exam

### Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمخت.

	Material Covered
Week 1	There is no
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

### Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Foundations and principles of agricultural economics / Dr. Abdul Wahab Matar Al Dhaheri 1969	Yes
Recommended Texts	The agricultural economy / level one / Prof. Dr Muhammad Amin Al-Sheshtawi / 2013	No
Websites	<a href="http://agri-science-reference.blogspot.com/">http://agri-science-reference.blogspot.com/</a>	

### Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فقد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	<b>(0-44)</b>	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Arabic Language		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory
Module Code	P1p		<input type="checkbox"/> Lecture
ECTS Credits	3		<input type="checkbox"/> Lab
SWL (hr/se3m)	2		<input type="checkbox"/> Tutorial
			<input type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	1	Semester of Delivery	2
Administering Department	Animal production	College	Technical Agricultural College
Module Leader	Amina mahir azeez	e-mail	Amina.mahir@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	
Co-requisites module		Semester	

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<p>1- إعداد طلاب لديهم القدرة على النطق الصحيح والكتابة من دون أخطاء قدر الإمكان. 2- ترغيب الطالب بقواعد الإملاء الصحيحة. 3- الاهتمام بعلامات الترقيم وكيفية استعمالها في الكتابة.</p>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<p>1- الاطلاع على القواعد الأساسية والمهمة في اللغة العربية . 2- التركيز على قواعد الإملاء الصحيحة. 3- الاهتمام بكثرة القراءة والاطلاع ؛ لتدريب الطالب على النطق الصحيح والكتابة من دون أخطاء قدر الإمكان.</p>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>يتضمن المحتوى الإرشادي ما يأتي:</p> <p>_ تنبيه الطلاب على الأخطاء اللغوية الشائعة، فضلا عن الاستفادة من تصحيح هذه الأخطاء في كتاباتهم الرسمية وغير الرسمية. (4) ساعات.</p> <p>_ معرفة قواعد الإملاء الضرورية. (4) ساعات</p> <p>_ معرفة علامات الترقيم وكيفية استعمالها. (4) ساعات.</p>

	Part B - practical part
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<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	1- تزويد الطلاب بالأساسيات والمحاضرات المتعلقة بالموضوع. 2- استخدام أساليب عرض الشرائح لإيصال المعلومة بشكل أكثر وضوحاً. 3- حث الطلاب على القراءة والاطلاع والذهاب إلى المكتبات.

<b>Student Workload (SWL)</b> الحمل الدراسي للطالب محسوب لـ 60 ساعة			
<b>Structured SWL (h/sem)</b>		<b>Structured SWL (h/w)</b>	
الحمل الدراسي المنتظم للطالب خلال الفصل	45		2



<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطلاب خلال الفصل	15	<b>Unstructured SWL (h/w)</b>	2
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<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	مفهوم الأخطاء اللغوية
Week 2	قواعد كتابة التاء المفتوحة المفتوحة والتاء المربوطة
Week 3	الألف الممدودة والألف المقصورة
Week 4	الحروف الشمسية والحروف القمرية
Week 5	الضاد والطاء
Week 6	كتابة الهمزة: الوصل والقطع، الهمزة المتوسطة، الهمزة المتطرفة
Week 7	علامات الترقيم
Week 8	امتحان
Week 9	الاسم والفعل والتفريق بينهما
Week 10	المفعول به، والمفعول المطلق، المفعول لأجله، والمفعول فيه، والمفعول معه
Week 11	الجوانب الشكلية للخطاب الإداري، لغة الخطاب الإداري

Week 12	العدد
Week 13	تطبيقات الأخطاء اللغوية الشائعة
Week 14	معاني حروف الجر، قاعدة الألف الفارقة، قاعدة النون والتنوين
Week 15	امتحان
Week 16	مراجعة المادة قبل الامتحان النهائي

### Delivery Plan (Weekly Lab. Syllabus)

#### المنهاج الاسبوعي للجزء العملي

	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

### Learning and Teaching Resources

#### مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	الإملاء الواضح، عبدالمجيد النعيمي، دحام الكيال، مكتبة دار المتنبي، بغداد، ط6، 1987م.	لا
Recommended Texts	دروس في اللغة والنحو والإملاء لموظفي الدولة، إسماعيل حمود عطوان وآخرون، مطبعة وزارة التربية رقم (3) بغداد، ط2، 1984م.	لا
Websites		

### Grading Scheme

#### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فقد المعالجة)	(45-49)	More work required but credit awarded

(0 - 49)	F - Fail	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Marketing animal products		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory
Module Code	Anp352		<input type="checkbox"/> Lecture
ECTS Credits	2		<input type="checkbox"/> Lab
SWL (hr/se3m)	4		<input type="checkbox"/> Tutorial
Module Level	3	Semester of Delivery	2
Administering Department	Animal production	College	Technical Agricultural College
Module Leader	Doaa Qasim Sabri	e-mail	dqasm0478.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Field management	Semester	
Co-requisites module	agricultural economy	Semester	1

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> <li>1- Introducing the student to the course and the concepts it entails that add new knowledge to the student.</li> <li>2- Understanding and developing the ability to apply marketing concepts to problems that may be faced in the field of agriculture.</li> <li>3- Understanding the basic concepts in agricultural marketing and how to apply them in the agricultural field to confront problems potential.</li> <li>4- Provide an overview of agricultural management principles, business structures, and agricultural policies</li> </ol>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> <li>1- I Understand how to market agricultural products locally and internationally and the role of the wholesaler and retailer in the marketing process</li> <li>2- Understanding the process of storing agricultural products using modern methods             <ol style="list-style-type: none"> <li>3 - Applying examples of grading and classifying agricultural products and analyzing the government's role in supporting agricultural production and the pricing mechanism</li> <li>4 - The role of technology in enhancing the concept of production and marketing of animal products</li> <li>5 - Introducing the student to advertising methods to increase sales</li> </ol> </li> <li>6 -Evaluating the role of technology in marketing animal products, the direct marketing mechanism, and agricultural commodity distribution channels</li> </ol>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p>Part A - theoretical part</p> <p>The concept of agricultural marketing and marketing development stages {3 hrs}</p> <p>Marketing objectives, functions and importance.{3hrs}</p> <p>Marketing mix elements.{3hrs}</p> <p>The concept of agricultural marketing, its nature, marketing information that helps the farmer make marketing decisions, and the added value of agricultural marketing. .{3hrs}</p> <p>Agricultural marketing outlets and agricultural marketing categories.{3hrs}</p>

	<p>Part B - practical part</p> <p>Marketing sheep and calves and manufacturing some of their products{ 9 hrs}</p> <p>Meat freezing, storage, processing and packaging{ 9 hrs}</p> <p>Marketing of chilled poultry and slaughtered birds and special conditions for export. { 9 hrs}</p> <p>Marketing frozen birds. . { 9 hrs}</p> <p>Fish marketing. { 9 hrs}</p>
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<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	<p>Preparing for the lecture, presenting its objectives before the discussion, and preparing for the topic of the next lecture at the end of each lecture. Using various teaching strategies: direct teaching, case studies, group work, and problem-solving learning Practice, and use the brainstorming method within lectures.</p> <p>Workshops, discussion panels, field visits, method of delivery .Methods of self- and distance learning</p>

<b>Student Workload (SWL)</b> الحمل الدراسي للطالب محسوب لـ 60 ساعة			
<b>Structured SWL (h/sem)</b>		<b>Structured SWL (h/w)</b>	
الحمل الدراسي المنتظم للطالب خلال الفصل	45		7





<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b>	6
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<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	Marketing overview
Week 2	Agricultural marketing concept
Week 3	Marketing and consumption of agricultural commodities
Week 4	Marketing mix and elements of the marketing mix
Week 5	Farm decisions
Week 6	Marketing jobs
Week 7	Markets and brokers
Week 8	Marketing margin
Week 9	Exam
Week 10	.Methods of studying agricultural markets
Week 11	Marketing costs

Week 12	Wholesalers and retailers
Week 13	.. Agricultural marketing policies
Week 14	Agricultural marketing policies
Week 15	Exam
Week 16	Preparatory week before the final Exam

### Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للجزء العملي

	Material Covered
Week 1	Marketing sheep and manufacturing some of its products
Week 2	Methods of selling animals
Week 3	Poultry marketing
Week 4	Marketing slaughtered birds
Week 5	Packing and freezing of poultry
Week 6	Fish marketing
Week 7	Fish marketing methods

### Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Khaled Sabaa Al-Najjar 1982 .	Yes
Recommended Texts	Akef Al-Zoghbi 2005 ..	No
Websites	<a href="https://www.agro-lib.site/2023/04/blog-post_554.html?m=1">https://www.agro-lib.site/2023/04/blog-post_554.html?m=1</a>	

### Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فقد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	<b>(0-44)</b>	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Techniques for Animal Nutrition		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	105 ANP		
ECTS Credits	3		
SWL (hr/se3m)	5		
Module Level	3	Semester of Delivery	
Administering Department	Sheep & Goats Production	College	Technical Agricultural College
Module Leader	Waseem Amer Hashim	e-mail	Wasseem_amer@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Principal of Animal production	Semester	2
Co-requisites module	Meat production Techniques	Semester	2



## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1- Introducing the student to the number of sheep and goats in the world, the Arab world, and Iraq.</li><li>2- Introducing the student to the types of sheep and goats internationally in general and Iraqi ones in detail.</li><li>3- Directs students towards the desire to obtain a better experience when applying for postgraduate studies.</li></ol>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1- The most important breeds of sheep and goats in the world and their areas of origin.</li><li>2- Types of Iraqi sheep and goats and what are their characteristics.</li><li>3- Reproduction in sheep and goats.</li><li>4- Patterns of red meat production from sheep</li><li>5- Wool production in sheep.</li><li>6- Breastfeeding newborns in sheep and goats and milk production.</li></ol>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Educational content includes the following.</p> <p>Part A - Theoretical part The economic importance of sheep and goats in Iraq. {3 hours}</p> <p>Types of Iraqi and international sheep and goats.{3hrs}</p> <p>Reproduction in sheep. {3 hours}</p> <p>Production of meat, wool and milk from sheep and goats. {3 hours}</p>

	<p>Part B - practical part</p> <p>The difference between the morphological and productive traits of Iraqi sheep and goats. {9 hours}</p> <p>Weaning systems used in raising sheep and goats.{9 hours}</p> <p>Records and their importance in raising sheep and goats. {9 hours}</p> <p>Field operations and age estimation in sheep. {9 hours}</p> <p>Male and female reproductive systems in sheep and goats. {9 hours}</p>
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### Learning and Teaching Strategies

#### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<p>Introducing the student to the types of local and international sheep, their specifications, how to compare them, the types of goats, and methods of feeding and managing them. The student will be able to manage a sheep and goat breeding farm and ways to multiply them and increase their productivity.</p>
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### Student Workload (SWL)

#### الحمل الدراسي للطالب محسوب ل60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	<b>Assignments</b>	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	All
	<b>Report</b>	1	10% (10)	13	LO #5, #8 and #10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hr	10% (10)	7	LO #1 - #7
	<b>Final Exam</b>	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
<b>Week 1</b>	The economic importance of sheep, advantages of raising sheep, origin of sheep, methods of dividing sheep
<b>Week 2</b>	International sheep breeds, Iraqi sheep
<b>Week 3</b>	Establishing a sheep flock, choosing the breed, herd size, and when to buy sheep
<b>Week 4</b>	Reproduction in sheep, reproductive organs, sexual maturity, hormonal control of reproduction
<b>Week 5</b>	Pregnancy, birth, care and rearing of lambs
<b>Week 6</b>	Sheep nutrition
<b>Week 7</b>	Meat production, growth and development in sheep, fattening lambs, cutting meat
<b>Week 8</b>	Milk production, milk production process and methods of measuring it, structure and physiology of the mammary gland
<b>Week 9</b>	Wool production, properties and characteristics of wool, growth of wool fibres
<b>Week 10</b>	Wool composition, grades and ranks of wool, some general characteristics of wool
<b>Week 11</b>	Genetic improvement of sheep, methods of improvement, improvement of Iraqi sheep

<b>Week 12</b>	Health care for sheep
<b>Week 13</b>	The economic importance of goats, the origin of goats, goat breeds
<b>Week 14</b>	Iraqi goats, goat reproduction, milk, hair and skin production in goats
<b>Week 15</b>	The future of the sheep industry and intensive production for campaigns

### Delivery Plan (Weekly Lab. Syllabus)

#### المنهاج الاسبوعي للجزء العملي

	Material Covered
<b>Week 1</b>	Identifying the breeds of sheep found in the field and trading sheep
<b>Week 2</b>	Daily field operations, cleaning barns, providing feed and water
<b>Week 3</b>	Seasonal field operations, washing and dipping sheep, preparing the bath, and the chemicals used
<b>Week 4</b>	Shearing wool, manual and mechanical shearing methods, and storing the wool after shearing
<b>Week 5</b>	Permanent field operations: numbering, tail cutting, horn removal
<b>Week 6</b>	Sheep barns, types of barns and their supplies, the preferred type in Iraq
<b>Week 7</b>	Anatomy of the male and female reproductive system
<b>Week 8</b>	Childbirth, preparing the birth pens, weighing newborns, breastfeeding newborns,
<b>Week 9</b>	Sheep teeth, types of teeth, estimating age using teeth
<b>Week 10</b>	Anatomy of the mammary gland in sheep
<b>Week 11</b>	The process of milking sheep, manual milking, mechanical milking, the pros and cons of each
<b>Week 12</b>	Phenotypic characteristics of goat breeds found in the field
<b>Week 13</b>	Preparing for the breeding season, food payment, scouting rams, and vaccination methods
<b>Week 14</b>	Records and field management, types of records, benefits of records
<b>Week 15</b>	Showing films about raising sheep

### Learning and Teaching Resources

#### مصادر التعلم والتدريس

	Text	Available in the Library?
<b>Required Texts</b>	Principal of Animal production	Yes
<b>Recommended Texts</b>	Marketing of animal production	yas
<b>Websites</b>	<a href="https://uomosul.edu.iq/agriculture/wp-content/uploads/sites/11/2023/09/%D9%86%D8%B8%D8%B1%D9%8A_compressed-14.pdf">https://uomosul.edu.iq/agriculture/wp-content/uploads/sites/11/2023/09/%D9%86%D8%B8%D8%B1%D9%8A_compressed-14.pdf</a>	

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group (0 - 49)</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Techniques for Animal Nutrition		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP 301		
ECTS Credits	3		
SWL (hr/se3m)	5		
Module Level	3	Semester of Delivery	
Administering Department	Animal production	College	Technical Agricultural College
Module Leader	Waseem Amer Hashim	e-mail	Waseem_amer@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Forage Manufacturing	Semester	2
Co-requisites module	Food and roughage analysis	Semester	2

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1- 1- Preparing students who have the ability to work in the field of animal nutrition and food formation according to modern scientific curricula linked to the developments taking place in the developed countries of the world in this field.</li><li>2- 2- Entering the agricultural sector with distinguished efficiency through participation in government projects and the labor market</li><li>3- 3- Directs students towards the desire to obtain a better experience when applying for postgraduate studies.</li></ol>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1- 1- The importance of agricultural business in increasing information and experience in advancing livestock and raising the productivity of its products of meat, eggs, and milk.</li><li>2- 2- - Using production elements with the highest economic efficiency in order to reduce the cost of production and increase profits at the facility level</li><li>3- 3- Organizing and simplifying many agricultural tasks to become routine work that is easy for the worker to do, which saves time and effort.</li><li>4- 4- Transferring scientific knowledge and scientific progress from the theoretical field to the field of application and work and benefiting from it in completing the work</li><li>5- 5- Optimal exploitation of production factors on the farm and achieving economic efficiency.</li><li>6- 6- The ability to provide advice in the field of farm management, especially in determining the financial and economic situation</li><li>7- 7- For the facility and identifying the areas that give the highest return.</li></ol>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Instructional content includes the following.</p> <p>Part A - Theoretical part Optimal exploitation of production factors on the farm that are included in feed components. {3 hours}</p> <p>The principle of determining the best level of production. In component relationships. While reducing costs.{3hrs}</p> <p>The principle of comparative advantage by determining the proportion of energy and protein in the diet. Taking into account production level planning. And methods of herd management. {3 hours}</p> <p>Identify the fodder materials that can be fed to animals.{3 hours}</p>

	<p>Part B - practical part</p> <p>Identifying the crops that can be used in the formation of feed {9 hours}</p> <p>Work on analyzing the components of feed materials {9 hours}</p> <p>Study how the bush is formed. {9 hours}</p> <p>How to calculate the animal's need according to the type of production. {9 hours}</p> <p>Production cost feasibility study, an article with relationship components. {9 hours}</p>
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### Learning and Teaching Strategies

#### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<p>Providing students with the basics and lectures related to the subject. Using slide presentation methods to convey information more clearly. Urging students to create animal diets and asking them to prepare scientific reports on topics related to nutrition.</p>
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### Student Workload (SWL)

#### الحمل الدراسي للطالب محسوب ل60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعيا	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غيرالمنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غيرالمنتظم للطالب أسبوعيا	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		



## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	<b>Assignments</b>	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	All
	<b>Report</b>	1	10% (10)	13	LO #5, #8 and #10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hr	10% (10)	7	LO #1 - #7
	<b>Final Exam</b>	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
<b>Week 1</b>	The metabolism of CHO , fat and proteins.
<b>Week 2</b>	Dairy cows feeding .
<b>Week 3</b>	Ration formuted voluntary feed intake green roughage .
<b>Week 4</b>	The animal and its food from cereals .
<b>Week 5</b>	Feeding methods , the importants at dairy cows nutrition .
<b>Week 6</b>	Feeding of Dairy cows befor and after the delivery .
<b>Week 7</b>	Calves fattening , methods and feed conversion ratio .
<b>Week 8</b>	Feeding of dry cows and bulls .
<b>Week 9</b>	Feeding of calves from wearing to maturaty age .
<b>Week 10</b>	Energy allowances and feeding system for ruminants.
<b>Week 11</b>	Feeding of sheep pregnant and lactating ewes .

<b>Week 12</b>	Sucking methods for lamb from birth to maturity .
<b>Week 13</b>	Feeding of ewes lamb from birth to maturity .
<b>Week 14</b>	Goats requirement from energy and protein .
<b>Week 15</b>	Exam

### Delivery Plan (Weekly Lab. Syllabus)

#### المنهاج الاسبوعي للجزء العملي

	Material Covered
<b>Week 1</b>	The use of requirements table to estimate allowance prot.
<b>Week 2</b>	Practicaly mathematic to estimate ruminants requirement.
<b>Week 3</b>	Practical example to estimate fattening calves.
<b>Week 4</b>	Using roughages for cattle with no pasture .
<b>Week 5</b>	Using requirement table to study ewes & rams feeding .
<b>Week 6</b>	Practical example to estimate the ewes requirement .
<b>Week 7</b>	Requirement of lambs feeding .

### Learning and Teaching Resources

#### مصادر التعلم والتدريس

	Text	Available in the Library?
<b>Required Texts</b>	Principles of animal nutrition	Yes
<b>Recommended Texts</b>	Ruminant feeding	yas
<b>Websites</b>	<a href="https://uomosul.edu.iq/agriculture/wp-content/uploads/sites/11/2023/09/%D9%86%D8%B8%D8%B1%D9%8A-6.pdf">https://uomosul.edu.iq/agriculture/wp-content/uploads/sites/11/2023/09/%D9%86%D8%B8%D8%B1%D9%8A-6.pdf</a>	

### Grading Scheme

#### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	<b>(0-44)</b>	Considerable amount of work required
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**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Techniques for Animal Nutrition		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	102 ANP		
ECTS Credits	3		
SWL (hr/se3m)	5		
Module Level	3	Semester of Delivery	
Administering Department	Animal Science	College	Technical Agricultural College
Module Leader	Waseem Amer Hashim	e-mail	Waseem_amer@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Laboratories Techniques	Semester	2
Co-requisites module	Biological cell	Semester	2

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1- 1- Introducing students to the animal cell, what its components are, its function, and its characteristics in the body of a living organism.</li><li>2- 2- The role of the cell in building tissues and organs of the animal body.</li><li>3- 3- Directs students towards the desire to obtain a better experience when applying for postgraduate studies.</li></ol>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1- 1- Types of animal cells, their shapes and functions in agricultural animals.</li><li>2- 2- How division occurs in the cell.</li><li>3- 3- The difference between DNA and RNA.</li><li>4- 4- Study of the functions of animal tissues</li><li>5- 5- The importance of each system and organ.</li><li>6- 6- Functions of the digestive system in agricultural animals.</li></ol>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Educational content includes the following.</p> <p>Part A - Theoretical part Animal cell types and shapes. {3 hours}</p> <p>The difference between DNA and RNA in animal cells.{3hrs}</p> <p>How a tissue and an organ are formed from a cell. {3 hours}</p> <p>Digestive system function in farm animals. {3 hours}</p>

	<p>Part B - practical part</p> <p>Microscope and its parts. {9 hours}</p> <p>Types of microscopes and their functions.{9 hours}</p> <p>Animal cell shapes. {9 hours}</p> <p>Animal cell divisions. {9 hours}</p> <p>Anatomy of a type of farm animal, such as a rabbit. {9 hours}</p>
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### Learning and Teaching Strategies

#### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<p>Introducing the student to the study of the evolution of living organisms, starting with the animal cell, tissues, and various body systems, or studying the classification of the animal kingdom, classifying families and genera, and studying their life composition.</p>
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### Student Workload (SWL)

#### الحمل الدراسي للطالب محسوب ل60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	<b>Assignments</b>	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	All
	<b>Report</b>	1	10% (10)	13	LO #5, #8 and #10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hr	10% (10)	7	LO #1 - #7
	<b>Final Exam</b>	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
<b>Week 1</b>	Introduction and historical overview of zoology
<b>Week 2</b>	The exact structure of the cell. Cell theory
<b>Week 3</b>	The living and non-living components of the cell with their functions in the animal cell
<b>Week 4</b>	Study of Turkish DNA and cell division
<b>Week 5</b>	A detailed study of the people of the animal kingdom,
<b>Week 6</b>	A detailed study of the people of the animal kingdom,
<b>Week 7</b>	Study of vertebrates, the law of life formation, its relationship to comparative anatomy, and its relationship to zoology
<b>Week 8</b>	Study of vertebrates
<b>Week 9</b>	Study of invertebrates
<b>Week 10</b>	Study of body systems (digestive system and circulatory system)
<b>Week 11</b>	Study of body systems (respiratory system and excretory system)

<b>Week 12</b>	Study of body systems (reproductive system and glands)
<b>Week 13</b>	A detailed study of the people of the Hawanid Kingdom
<b>Week 14</b>	Study of embryonic development and adaptation
<b>Week 15</b>	Exam

### Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للجزء العملي

	Material Covered
<b>Week 1</b>	Compound microscope and how to use it
<b>Week 2</b>	Animal cell shapes
<b>Week 3</b>	Cell: living and non-living components
<b>Week 4</b>	The process of isolating cell chromosomes - cell division - mitosis and meiosis
<b>Week 5</b>	Basic animal tissues
<b>Week 6</b>	The process of tissue staining and tissue dyeing
<b>Week 7</b>	Unicellular animals (amoeba Paramecium euglena)
<b>Week 8</b>	Field animals
<b>Week 9</b>	Frog anatomy - digestive, respiratory, urinary, reproductive systems
<b>Week 10</b>	Anatomy of a Frog - Complete the Equipment

### Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
<b>Required Texts</b>	Animal Science	Yes
<b>Recommended Texts</b>	Animal anatomy	yas
<b>Websites</b>	<a href="https://sc.uobaghdad.edu.iq/wp-content/uploads/sites/64/2022/12/%D8%B9%D9%84%D9%85-%D8%A7%D9%84%D8%AD%D9%8A%D9%88%D8%A7%D9%86-%D8%A7%D9%84%D8%B9%D8%A7%D9%85.pdf">https://sc.uobaghdad.edu.iq/wp-content/uploads/sites/64/2022/12/%D8%B9%D9%84%D9%85-%D8%A7%D9%84%D8%AD%D9%8A%D9%88%D8%A7%D9%86-%D8%A7%D9%84%D8%B9%D8%A7%D9%85.pdf</a>	



## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group (0 - 49)</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Techniques for Animal Nutrition		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ANP 408		
ECTS Credits	3		
SWL (hr/se3m)	5		
Module Level	3	Semester of Delivery	
Administering Department	Ruminants Digestive Physiology	College	Technical Agricultural College
Module Leader	Waseem Amer Hashim	e-mail	Wasseem_amer@ntu.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Ruminants Physiology	Semester	2
Co-requisites module	Physiology of Digestion	Semester	2

## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1- Students are introduced to the organs of the digestive system and the function of each part of it in the digestion process according to modern scientific curricula linked to the developments witnessed by the developed countries of the world in this field.</li><li>2- The extent of the digestive system and its relationship to production in ruminant animals.</li><li>3- Directs students towards the desire to obtain a better experience when applying for postgraduate studies.</li></ol>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1- 1- The importance of the digestive system, its environment, its contents, and its role in the decomposition of feed materials.</li><li>2- 2- Anatomy of the digestive system and knowledge of the mechanics of how each part of it works.</li><li>3- 3- Organizing and simplifying many digestive system tasks to become routine work that is easier for the breeder to do than providing food.</li><li>4- 4- Transferring scientific knowledge and scientific progress from the theoretical field to the field of application and work and benefiting from it in completing the work</li><li>5- 5- Optimal utilization of feed provided to farm animals and achieving economic efficiency.</li><li>6- 6- The ability to provide advice in the field of animal nutrition.</li></ol>
<p><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Educational content includes the following.</p> <p>Part A - Theoretical part The difference between the simple and compound stomach, what is the function of each, and the nature of its work with food. {3 hours}</p> <p>What is the rumen and what are the microorganisms present inside it and their types.{3hrs}</p> <p>The working principle of the digestive system and its connection to nervous control. {3 hours}</p> <p>Types of ruminants, the nature of their digestive system, and the type of their nutrition. {3 hours}</p>

	<p>Part B - practical part</p> <p>Anatomy of the digestive system and identification of the complex parts of the stomach. {9 hours}</p> <p>Classification of microorganisms according to the nature of their analysis of feed materials. {9 hours}</p> <p>The effect of energy and protein sources on the type of rumen bacteria. {9 hours}</p> <p>A study of the mechanism of rumination. {9 hours}</p> <p>The difference between the compound stomach and the simple stomach. {9 hours}</p>
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### Learning and Teaching Strategies

#### استراتيجيات التعلم والتعليم

<b>Strategies</b>	<p>Introducing the student to the organs of the digestive system of ruminants and the functions of each organ and to facilitate his better understanding of feed materials to obtain the best productivity from the animal through proper and consistent performance between all organs and food materials consumed.</p>
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### Student Workload (SWL)

#### الحمل الدراسي للطالب محسوب ل60 ساعة

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعيا	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غيرالمنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غيرالمنتظم للطالب أسبوعيا	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	<b>Assignments</b>	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	All
	<b>Report</b>	1	10% (10)	13	LO #5, #8 and #10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hr	10% (10)	7	LO #1 - #7
	<b>Final Exam</b>	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
<b>Week 1</b>	The development of the stomach and intestines during the stages of an animal's life, comparing the stomach of ruminants to non-ruminants and semi-ruminants
<b>Week 2</b>	Feed ingestion, chewing, and animal behavior during consumption and breastfeeding
<b>Week 3</b>	Saliva: quantities, chemistry and functions
<b>Week 4</b>	Passage of consumed feed through the digestive tract, rumination, burping, rumen pressure, and movements and coordination of ingestion and defecation.
<b>Week 5</b>	Rumen bacteria, their ciliates, and enzymes secreted from them, as well as from the digestive tract
<b>Week 6</b>	Rumen fermentations: carbohydrates and lipids
<b>Week 7</b>	Rumen fermentations: nitrogenous compounds and the role of vitamins and inorganic elements in rumen fermentations
<b>Week 8</b>	A look at the anatomy and physiology of the digestive system in poultry
<b>Week 9</b>	Movement of nutrients within the digestive system of poultry
<b>Week 10</b>	Factors affecting feed intake in poultry (feed intake model, energy requirements, other nutrients, special appetites, water, egg laying, other secondary factors such as medications, stress, urging and pushing)
<b>Week 11</b>	Physiological control of food intake (central nervous system, metabolic control, gastrointestinal control)

<b>Week 12</b>	Production and storage of energy in chickens
<b>Week 13</b>	The role of the pancreas in digestive processes in poultry (pancreatic enzymes, bile)
<b>Week 14</b>	Regulating feed consumption in poultry
<b>Week 15</b>	Exam

### Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للجزء العملي

	Material Covered
<b>Week 1</b>	Anatomy of the ruminant stomach and surgical modifications of the digestive tract
<b>Week 2</b>	Factors affecting the development of the digestive tract and saliva secretion
<b>Week 3</b>	Functions of the digestive system: mouth, stomach, quadriceps, and intestines
<b>Week 4</b>	Methods for taking samples of nutrients in the rumen
<b>Week 5</b>	Methods of examining samples taken from the rumen of animals fed different feeds
<b>Week 6</b>	Cultivating germination and incubation of models taken from the rumen of animals and identifying the bacterial colonies and ciliates in them.
<b>Week 7</b>	Treatment of some digestive problems and the gastrointestinal tract: bloating, bloating, and poisoning with harmful plants or apolipoprotein nitrogenous compounds.
<b>Week 8</b>	Anatomy of the digestive system of poultry and identification of its different parts
<b>Week 9</b>	Explaining poultry and identifying all of the body's glands (pituitary, pineal, thyroid, pancreas, adrenal and the functions of each gland and their relationship to digestion and absorption processes in poultry)
<b>Week 10</b>	Conducting a field experiment in poultry nutrition by marking the feed with colored reagents, following the stages of digestion, absorption, and feed collection, measuring protein and some other nutritional elements in the fodder and feed materials to give an idea of the process of digestion and absorption of these nutrients and calculating the digestibility coefficient.

### Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
<b>Required Texts</b>	Physiology of digestion in ruminants	Yes
<b>Recommended Texts</b>	Physiology of digestion	yas
<b>Recommended Texts</b>	Physiology of ruminants	
<b>Websites</b>	<a href="https://bu.edu.eg/portal/uploads/Agriculture/Animal%20Production/1096/crs-15239/Anim.prod.1(phys.)6-digestive%20system.pdf">https://bu.edu.eg/portal/uploads/Agriculture/Animal%20Production/1096/crs-15239/Anim.prod.1(phys.)6-digestive%20system.pdf</a>	

## Grading Scheme

### مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria
<b>Fail Group (0 - 49)</b>	<b>FX - Fail</b>	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	<b>F - Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Techniques for creating and managing fields		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	Anp405		
ECTS Credits	2		
SWL (hr/se3m)	4		
Module Level	4	Semester of Delivery	
Administering Department	Animal production	College	Technical Agricultural College
Module Leader	Doaa Qasim Sabri	e-mail	dqasm0478.edu.iq
Module Leader's Acad. Title	assistant teacher	Module Leader's Qualification	Master's
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Economics of animal production	Semester	
Co-requisites module	agricultural economy	Semester	1



## Module Aims, Learning Outcomes and Indicative Contents

### أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Objectives</b> أهداف المادة الدراسية</p>	<ol style="list-style-type: none"><li>1- Preparing students with the ability to work in the field of crop protection according to modern scientific curricula related to the developments that occur in developed countries in the world in this field</li><li>2- Entry into the agricultural sector with outstanding efficiency through participation in government projects And the labor market</li><li>3- directs students towards the desire to have better experience when applying for postgraduate studies.</li></ol>
<p><b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"><li>1- The importance of farming businesses in increasing information and expertise in the progress of agriculture and raising agricultural productivity - for one dunum</li><li>2- - the use of production elements with higher economic efficiency in order to reduce the cost of production and increase profits at the facility level</li><li>3 - Regulating and simplifying many Farmwork works to become a routine work that the worker can easily perform, saving time and effort.</li><li>4 - Transferring scientific knowledge and scientific progress from the theoretical field to the field of application and work and benefiting from it in completing work</li><li>5 -Optimal exploitation of production factors on the farm and achieving economic efficiency.</li><li>6 - The ability to provide advice in the field of farm management, especially in determining the financial and economic position For the facility and identifying the areas that give the highest returns.</li></ol>

<p style="text-align: center;"><b>Indicative Contents</b> المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p><b>Part A - theoretical part</b></p> <p>Optimal exploitation of production factors on the farm and achieving economic efficiency. {3 hrs}</p> <p>The principle of determining the best level of production. Substitution and substitution. The principle of opportunity costs.{3hrs}</p> <p>The principle of comparative advantage and the principle of equal marginal returns. Farm planning. Farm management methods.{3hrs}</p> <p>Full and partial budget. Measures of economic efficiency. .{3hrs}</p> <p>Risk and uncertainty.{3hrs}</p>
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	<p>Part B - practical part</p> <p>Production component management. Land statistics { 9 hrs}</p> <p>Establishing farms. Estimating the value of agricultural land { 9 hrs}</p> <p>Department of Labor . Types of farm work. { 9 hrs}</p> <p>Mazari work specifications. Work and diamond head. . { 9 hrs}</p> <p>Divisions and forms of capital, basic agricultural management. { 9 hrs}</p>
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<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	<p>Providing students with the basics and lectures related to the subject. Using slide presentation methods for the purpose of conveying the information in a more clear way. Urging students to go to the library while asking them to do scientific reports on topics related to bioresistance.</p>

<b>Student Workload (SWL)</b> الحمل الدراسي للطالب محسوب لـ 60 ساعة			
<b>Structured SWL (h/sem)</b>		<b>Structured SWL (h/w)</b>	
الحمل الدراسي المنتظم للطالب خلال الفصل	45		7



<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b>	6
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<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>
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## Module Evaluation

### تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

### المنهاج الاسبوعي النظري

	Material Covered
Week 1	The concept of farm management, its objectives and duties
Week 2	Farm management science and economic foundations
Week 3	Farm revenues
Week 4	Farm decisions
Week 5	The principle of determining the best level of production
Week 6	The principle of substitution and substitution
Week 7	The principle of opportunity costs
Week 8	Exam
Week 9	The principle of comparative advantage and the principle of equal marginal returns
Week 10	Farm planning
Week 11	Farm management methods



Week 12	Economic feasibility of projects
Week 13	Measures of economic efficiency
Week 14	Risk and uncertainty
Week 15	Exam
Week 16	Preparatory week before the final Exam

### Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للجزء العملي

	Material Covered
Week 1	Law of diminishing returns
Week 2	Agricultural projects and the factors that affect the election of any agricultural project
Week 3	Establishment of farms
Week 4	Estimating the value of agricultural land
Week 5	Production elements
Week 6	Labor and capital
Week 7	Extinction

### Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Farm Administration, Hashim Alwan Al-Samrani, 1981.	Yes
Recommended Texts	Agricultural Establishments Management - Khaled Al-Ruwais 2003.	No
Websites	<a href="https://coagri.uobaghdad.edu.iq">https://coagri.uobaghdad.edu.iq</a>	

### Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
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	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX - Fail	راسب (فقد المعالجة)	(45-49)	More work required but credit awarded

<b>(0 - 49)</b>	<b>F - Fail</b>	راسب	<b>(0-44)</b>	Considerable amount of work required

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

## Course description for the third level poultry physiology course

1. Educational Institution	Ministry of Higher Education and Scientific Research/Northern Technical University
2. University/ Department	College of Agricultural Technology / Department of Animal Production Technologies
3. Course title/code	)poultry physiology Anp 305(
4. Programme (s) to which it contributes	Agricultural technical engineer (حسب ) مخرجات كل قسم
5. Modes of Attendance offered	1- Weekly lesson schedule (theoretical and practical). 2- Scientific discussions, seminars, and other extracurricular activities
6. Semester/Year	Annual
7. Number of hours tuition (total)	75
8. Date of production/revision of this specification	11 / 4 / 2024
<b>9. Aims of the Course</b>	
1- Introducing the student to the physiology and structure of the animal cell of poultry	
2- Anatomy of the organs and body components of poultry	
3- Introducing the student to how to conduct blood tests.	
<b>10. Course outcomes and teaching, learning and evaluation methods</b>	
A.Cognitive objectives	
A1- Identify the components of the animal cell of poultry.	
A2- Identify the physiological functions of poultry body organs.	
A3- Linking poultry physiology and its influence on the surrounding environment	
B - The skills objectives of the course.	
B1 - Training in drawing blood samples.	
B2 - Training students on how to handle laboratory equipment such as microscopes.	
B3 - Training students to perform dissections of poultry body organs	
Teaching and learning methods	
Traditional lecture, report writing, seminar conduct, practical training in the laboratory, methodological training in the hospital, and summer training.	
<b>Evaluation methods</b>	
Daily written and oral tests, applied tests, seminars, semester and final exams,	

obligations to assignments, attendance and commitment, feedback (testing the student on the previous subject), self-evaluation (questions are set for the student by the teacher and the student answers the questions, and the teacher also answers the same questions and asks The student is asked to evaluate himself in light of the teacher's answers, reports on scientific developments in the field of specialization, and asks analytical and deductive questions.
C- Emotional and value goals C1- Training on how to deal with poultry in the fields. C2- Training on how to handle blood samples. C3- Training on how to deal with environmental problems affecting the physiology of poultry.
<b>Teaching and learning methods</b>
Traditional lecture, self-learning, feedback, deductive and analytical thinking questions, methodological training in laboratories, applied training in fields, and summer training.
<b>Evaluation methods</b>
Simulating the medical condition, written, oral, and applied tests, semester and final exams, daily tests, and commitments to assignments such as making reports in the field of specialization and then discussing the reports, attendance and commitment, feedback (testing the student on the previous subject), self-evaluation (questions are put to the student by the teacher The student answers the questions, and the teacher also answers the same questions. The student is asked to evaluate himself in light of the teacher's answers) and deductive and deductive questions.
D - Transferable general and qualifying skills (other skills related to employability and personal development). D1- Field visits to gain experience from others. D2- Access to scientific developments in the field of specialization (educational videos). D3- Practical training in Veterinary hospitals.

11. Course Structure					
Week	Hours	Unit/Module or Topic Title	ILOs	Teaching Method	Assessment Method
1	5	The concept of physiology, the importance of physiology, the history of physiology, methods of .studying physiological processes	Introducing students to the concept and importance of	Lecture, discussion, presentation of	test

			physiology for poultry	radiological videos	
2	5	Structure of cell physiology	Identifying the cells of the poultry body	Lecture, discussion, presentation of radiological videos	practical test
3	5	Tissue physiology installation	Identify the body tissues of poultry	Lecture, discussion, presentation of radiological videos	test
4	5	Digestive system physiology	Identify the components of the digestive system	Lecture, discussion, presentation of radiological videos	Test
5	5	Physiology of the circulatory system	Identify the components of the circulatory system	Lecture, discussion, presentation of radiological videos	practical test
6	5	Physiology of the circulatory system	Identify the components of the circulatory system	Lecture, discussion, presentation of radiological videos	practical test
7	5	Respiratory system physiology	Identify the components of the respiratory system	Lecture, discussion, presentation of radiological videos	practical test
8	5	Physiology of the urinary system	Identify the components of the urinary system	Lecture, discussion, presentation of radiological videos	practical test
9	5	Physiology of the male reproductive system	Identify the components of the male	Lecture, discussion, presentation	practical test

			reproductive system	of radiological videos	
10	5	Physiology of the female reproductive system	Identify the components of the female reproductive system	Lecture, discussion, presentation of radiological videos	practical test
11	5	Endocrine system and hormones	Identify the work of the endocrine glands and the hormones secreted from them	Lecture, discussion, presentation of radiological videos	practical test
12	5	Endocrine system and hormones	Identify the work of the endocrine glands and the hormones secreted from them	Lecture, discussion, presentation of radiological videos	practical test
13	5	The history of heat stress	Identify the effect of heat stress on poultry	Lecture, discussion, presentation of radiological videos	practical test
14	5	Ecology and definition of ecology	Identify the impact of the environment on the physiology of poultry	Lecture, discussion, presentation of radiological videos	practical test
15	5	Visit one of the poultry production fields	Introducing the student to how to deal with poultry	Lecture, discussion,	practical test

<b>12. Infrastructure</b>	
Required reading:	Poultry bird slaughter, Prof. Dr. Diaa Hassan Al-Hassani, 2000
<b>Main references (sources)</b>	Animal physiology d. Dhia Hassan Al-Hassani Dr. Sadiq Muhammad Amin Al-Hiti 1990
Recommended books and references (scientific journals, reports,...)	
B - Electronic references, Internet sites...	

<b>13. Course development plan</b>
<p>1- Access to modern scientific literature</p> <p>2- Participation in relevant scientific conferences</p> <p>3- The teaching and training staff is partially devoted to applying and working in veterinary hospitals</p> <p>4- Hosting specialized veterinarians</p> <p>5- Academic pairing with other universities and corresponding colleges</p>

## وصف المقرر لمادة فسلجة دواجن المستوى الثالث

1. المؤسسة التعليمية	وزارة التعليم العالي والبحث العلمي/ الجامعة التقنية الشمالية
2. الجامعة/ القسم العلمي	الكلية التقنية الزراعية / قسم تقنيات الانتاج الحيواني
3. اسم / رمز المقرر	فسلجة دواجن (Anp 305).
4. البرنامج (البرامج) الذي تدخل فيها	مهندس تقني زراعي
5. أشكال الحضور المتاحة	1- جدول الدروس الأسبوعي ( نظري وعملي ). 2- المناقشات والندوات العلمية والنشاطات الأخرى اللاصفية
6. الفصل / السنة	مقررات.
7. عدد الساعات الدراسية (الكلي)	75 ساعة (عدد الساعات النظرية والعملية خلال ال15 اسبوع)
8. تاريخ إعداد هذا الوصف	11/4/2024.
9. أهداف المقرر	
	1- تعريف الطالب بفسلجة وتركيب الخلية الحيوانية للدواجن .
	2- تشريح الاعضاء ومكونات الجسم للدواجن .
	3- تعريف الطالب كيفية اجراء فحوصات الدم .
10. مخرجات المقرر وطرائق التعليم والتعلم والتقييم	
	أ- الأهداف المعرفية 1أ- التعرف على مكونات الخلية الحيوانية للدواجن . 2أ- التعرف على الوظائف الفسلجية لاعضاء جسم الدواجن . 3أ- ربط فسلجة الدواجن وتأثرها بالبيئة المحيطة .
	ب - الأهداف المهاراتية الخاصة بالمقرر . ب1 - التدريب على سحب عينات الدم . ب2 - تدريب الطلبة على كيفية التعامل مع الاجهزة المختبرية كالمجاهر . ب3 - تدريب الطلبة على اجراء التشريح لاعضاء اجهزة جسم الدواجن.
	طرائق التعليم والتعلم
	المحاضرة التقليدية، كتابة التقارير، إجراء الحلقات الدراسية، التدريب التطبيقي في المختبر.
	طرائق التقييم
	الأختبارات التحريرية والشفهية اليومية، الأختبارات التطبيقية، الحلقات الدراسية، الأمتحانات الفصلية والنهائية، الألتزامات بالتكليفات ، الحضور والألتزام، التغذية الراجعة ( اختبار الطالب بالموضوع السابق ) ، التقييم الذاتي (توضع اسئلة للطالب من قبل المدرس ويجاوب الطالب على الأسئلة وكذلك يجاوب المدرس على نفس الأسئلة ويطلب من الطالب تقييم نفسه على ضوء اجوبة المدرس ) , تقارير حول المستجدات العلمية في حقل الأختصاص، توجيه أسئلة تحليلية واستنتاجية.
	ج- الأهداف الوجدانية والقيمية ج1- التدريب على كيفية التعامل مع الدواجن في الحقول. ج2- التدريب على كيفية التعامل عينات الدم .



ج3- التدريب على كيفية التعامل مع المشاكل البيئية المؤثرة على فسلة الدواجن.
طرائق التعليم والتعلم
المحاضرة التقليدية، التعلم الذاتي، التغذية الراجعة، أسئلة التفكير الاستنتاجي والتحليلي، التدريب المنهجي في المختبرات، التدريب التطبيقي في الحقول.
طرائق التقييم
الآختبارات التحريرية والشفهية والتطبيقية، والأمتحانات الفصلية والنهائية، والآختبارات اليومية، والألتزامات بالتكليفات مثل عمل التقارير في مجال الأختصاص ومن ثم مناقشة التقارير ، الحضور والألتزام ، التغذية الراجعة ( اختبار الطالب بالموضوع السابق) ، التقييم الذاتي (توضع اسئلة للطالب من قبل المدرس ويجاوب الطالب على الأسئلة وكذلك يجاوب المدرس على نفس الأسئلة ويطلب من الطالب تقييم نفسه على ضوء اجوبة المدرس)، الأسئلة الاستنتاجية والأستدلالية.
د - المهارات العامة والتأهيلية المنقولة ( المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي ). د1- الزيارات الميدانية لأكتساب الخبرة من الأخرين. د2- الأطلاع على المستجدات العلمية في حقل الأختصاص (فيديوهات تعليمية). د3- التدريب العملي في المستشفيات البيطرية .

11. بنية المقرر					
الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة / أو الموضوع	طريقة التعليم	طريقة التقييم
1	5	تعريف الطلبة بمفهوم واهمية الفسلة للدواجن	مفهوم الفسلة ،اهمية الفسلة ،تاريخ علم الفسلة ، طرق دراسة العمليات الفسلجية	محاضرة، مناقشة، عرض فيديوهات	اختبار
2	5	التعرف على خلايا جسم الدواجن	تركيب فسلة الخلية	محاضرة، مناقشة، عرض فيديوهات	اختبار عملي

اختبار	محاضرة، مناقشة، عرض فيديوهات	تركيب فسلجة الانسجة	التعرف على انسجة جسم الدواجن	5	3
اختبار	محاضرة، مناقشة، عرض فيديوهات	فسلجة الجهاز الهضمي	التعرف على مكونات الجهاز الهضمي	5	4
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة جهاز الدوران	التعرف على مكونات جهاز الدوران	5	5
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة جهاز الدوران	التعرف على مكونات جهاز الدوران	5	6
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة جهاز التنفسي	التعرف على مكونات الجهاز التنفسي	5	7
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة جهاز البولي	التعرف على مكونات الجهاز البولي	5	8
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة جهاز التناسلي الذكري	التعرف على مكونات الجهاز التناسلي الذكري	5	9
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة جهاز التناسلي الانثوي	التعرف على مكونات الجهاز التناسلي الانثوي	5	10
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة الغدد الصماء والهرمونات	التعرف على عمل الغدد الصماء والهرمونات المفرزة منها	5	11
اختبار عملي	محاضرة، مناقشة، عرض فيديوهات	فسلجة الغدد الصماء والهرمونات	التعرف على عمل الغدد الصماء والهرمونات المفرزة منها	5	12

اختبار عملي	محاضرة، مناقشة، عرض فيديو	فسلجة الاجهاد الحراري	التعرف على تأثير الاجهاد الحراري على الدواجن	5	13
اختبار عملي	محاضرة، مناقشة، عرض فيديو	فسلجة البيئة وتعريف علم البيئة	التعرف على أثر البيئة على فسلجة الدواجن	5	14
اختبار عملي	محاضرة، مناقشة	زيارة احد حقول الدواجن الانتاجية	تعريف الطالب على كيفية التعامل مع الدواجن	5	15

12. البنية التحتية	
1- الكتب المقررة المطلوبة	فسلجة الطيور الداجنة أ.د ضياء حسن الحسني 2000
2- المراجع الرئيسية (المصادر)	فسلجة الحيوان د. ضياء حسن الحسني د. صادق محمد أمين الهيتي 1990
ا- الكتب والمراجع التي يوصى بها (المجلات العلمية , التقارير ,....	
ب - المراجع الالكترونية, مواقع الانترنت ....	

13. خطة تطوير المقرر الدراسي
<p>1- الأطلاع على الأدبيات العلمية الحديثة</p> <p>2- المشاركة في المؤتمرات العلمية ذات العلاقة</p> <p>3- تفرغ الملاك التدريسي والتدريبي للتطبيق والعمل في المستشفى البيطري جزئياً</p> <p>4- استضافة اطباء بيطريين متخصصين.</p> <p>5- المزوجة العلمية مع الجامعات الأخرى والكليات المناظرة.</p>