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Refer to guidance notes for completion of each section of the specification.

<b>Module Code:</b>	VEN401
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<b>Module Title:</b>	Diagnostic Procedures and Parasitology
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<b>Level:</b>	4	<b>Credit Value:</b>	20
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<b>Cost Centre(s):</b>	GAAN	<b>JACS3 code:</b>	D310 / 100532
		<b>HECoS code:</b>	

<b>Faculty</b>	Social and Life Sciences	<b>Module Leader:</b>	Angela Winstanley
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Scheduled learning and teaching hours	36 hrs
<b>Total contact hours</b>	<b>36 hrs</b>
Guided independent study	164 hrs
<b>Module duration (total hours)</b>	<b>200 hrs</b>

<b>Programme(s) in which to be offered (not including exit awards)</b>	Core	Option
Foundation degree (FdSc) Veterinary Nursing	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Pre-requisites</b>
None

<b>Office use only</b>		
Initial approval:	05/11/2019	Version no: 1
With effect from:	28/09/2020	
Date and details of revision:		Version no:

## Module Aims

Diagnostic procedures are essential for a correct patient diagnosis within the veterinary practice. Veterinary nurses routinely assist under the direction of the veterinary surgeon in a range of diagnostic procedures. This module will cover the preparation, maintenance and correct use of a wide range of diagnostic procedures and laboratory equipment. Students will gain an understanding of the principles which will enable them to safely use a range of imaging techniques and laboratory tests. Students will be able to recognise normal and abnormal parameters and their significance for the treatment and care of their patients.

This module will also cover the important topic of parasitology, identification methods, their life cycles and strategies to treat and control them.

*\* range of species in addition to cats and dogs holders of veterinary nursing degrees should be competent in providing nursing care to animals that are commonly kept as pets in the UK. This will include rabbits, small mammals and appropriate species of reptiles and birds. In addition to the above animals, a level of basic knowledge and competence in the husbandry and nursing care of horses, endemic UK wildlife and exotic species not commonly seen in the UK (QAA Subject benchmark statement, Veterinary Nursing, 2019).*

## Module Learning Outcomes - at the end of this module, students will be able to

1	Explain the principles and suitability of a range of diagnostic imaging techniques, used in practice, to assist with the diagnosis process.
2	Describe patient positioning and quality of produced image for a range of projections
3	Identify and discuss laboratory tests, including interpretation of results against standard parameters
4	Explain the processes and protocols for collecting, preserving and transporting animal samples.
5	Identify parasites affecting animals in the UK and describe their life cycles in context to treatment strategies.

<b>Employability Skills The Wrexham Glyndŵr Graduate</b>	<b>I = included in module content A = included in module assessment N/A = not applicable</b>
<i>Guidance: complete the matrix to indicate which of the following are included in the module content and/or assessment in alignment with the matrix provided in the programme specification.</i>	
<b>CORE ATTRIBUTES</b>	
Engaged	I and A
Creative	A
Enterprising	N/A
Ethical	I and A
<b>KEY ATTITUDES</b>	
Commitment	I and A
Curiosity	I
Resilient	I and A
Confidence	I and A
Adaptability	N/A
<b>PRACTICAL SKILLSETS</b>	
Digital fluency	A
Organisation	I and A
Leadership and team working	I
Critical thinking	I and A
Emotional intelligence	I
Communication	I and A
<b>Derogations</b>	
This module is mapped to the RCVS Day One Competences (DOC) and Day One Skills (DOS). To gain a pass in this module a minimum mark of 40% must be achieved by the student in each summative assessment element.	

<b>Assessment:</b>			
Indicative Assessment Tasks:			
<p><b>Formative</b> Practical and laboratory sessions with peer review, quizzes. A range of modalities will be used by the tutor to provide feedback to students.</p> <p><b>Summative</b> Assessment 1: Coursework, digital informative leaflet for practice clients Assessment 2: In-class test (unseen, 2 hours, MCQs, short answer questions and problem solving questions)</p>			
Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	5	Coursework	30
2	1, 2, 3 and 4	In-class test	70

### Learning and Teaching Strategies:

A range of learning and teaching strategies will be employed, and will focus on student centred teaching. Delivery of content will be conducted in the clinical suite to apply theory to practice. Teaching sessions will also be delivered in lecture rooms and the laboratory. The emphasis will be on active learning for each session delivered.

The clinical suite will be used by the students to develop their practical skills which are linked to the RCVS Day One Skills list.

Learning outcomes mapped to RCVS day one competences (DOC) and day one skills (DOS)		
LO1 & 2	Prepare and conduct diagnostic imaging and other techniques carrying out the procedure in accordance with good health and safety and current regulations.	DOC 20
LO4	Collect, preserve and transport samples, prepare appropriate diagnostic tests, understand the limitations of the test results and identify the significance of spurious results.	DOC 18
LO5	Advise clients on programme of preventative medicine appropriate to species	DOC 32
LO4	Prepare accurate clinical and client records, and laboratory reports when necessary, in a form satisfactory to colleagues and understandable by the public	DOC 6
LO4	Communicate clearly and collaborate with referral and diagnostic services, ensuring they receive an appropriate history from the veterinary surgeon	DOC 19
LO2	Prepare and use radiography equipment to produce a diagnostic image	DOS 6.1
LO1	Use appropriate personal protective equipment (PPE) and radiation monitoring equipment in accordance with practice local rules	DOS 6.2
LO2	Position a patient to obtain a diagnostic image of the area of interest	DOS 6.3
LO2	Process images according to practice procedure	DOS 6.4
LO2	Record exposures and results of images according to practice procedure	DOS 6.5
LO2	Prepare and support animals during endoscopy	DOS 6.6
LO2	Prepare and support animals during ultrasound investigation	DOS 6.7
LO3	Discuss with the veterinary surgeon and prepare for an appropriate sampling strategy	DOS 5.1
LO3	Take appropriate samples; blood, urine, faeces, skin hair pluck, bacterial swabs	DOS 5.2
LO3	Carry out haematological analysis	DOS 5.3
LO3	Carry out urinalysis	DOS 5.4
LO3	Carry out faecal analysis	DOS 5.5
LO3	Carry out skin and hair analysis	DOS 5.6
LO3	Use a microscope	DOS 5.7
LO3	Prepare samples for external analysis	DOS 5.8
LO3	Record laboratory test results and communicate accurately to the appropriate clinician	DOS 5.9
LO4	Complete appropriate paperwork for referral and diagnostic services	DOS 2.7

### Reference Points:

QAA Subject Benchmark Statement for Veterinary Nursing

[https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-veterinary-nursing.pdf?sfvrsn=def3c881\\_4](https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-veterinary-nursing.pdf?sfvrsn=def3c881_4)

RCVS Fitness to Practise Guide

<https://www.rcvs.org.uk/news-and-views/publications/fitness-to-practise-a-guide-for-uk-providers-of-veterinary/?destination=%2Fnews-and-views/publications%2F>

Updated September 2019

RCVS Day One Skills for Veterinary Nurses

<https://www.rcvs.org.uk/document-library/rcvs-day-one-skills-for-veterinary-nurses/>

RCVS Day One Competences for Veterinary Nurses

<https://www.rcvs.org.uk/document-library/day-one-competences-for-veterinary-nurses/>

RCVS Code of Professional Conduct for Veterinary Nurses

<https://www.rcvs.org.uk/document-library/code-of-professional-conduct-for-veterinary-nurses/>

### **Syllabus outline:**

#### Learning outcome 1

Principles of radiography / dental imaging / MRI / CT / ultrasound / scintigraphy and endoscopy / Ionizing Radiation Regulations and Health and Safety legislation / radiation effects / radiation dosimeters / PPE / radiation protection devices / factors in producing the image.

#### Learning outcome 2

Rules of positioning and patient preparation / positioning for a range of projections / terminology / positioning aids and markers / restraint / BVA / KC scoring schemes / contrast mediums / recording the image / processing / common faults.

#### Learning outcome 3

Laboratory tests to include, haematology / urinalysis / microbiology / parasitology / clinical chemistry and immunology testing. Interpretation of abnormal / normal in patients / recording Laboratory equipment required / maintenance. Safe handling and laboratory good practice / correct disposal of reagents / samples etc.

#### Learning outcome 4

Protocol for collecting, storing and preserving a range of samples / common problems / recording and preparing correct documentation to external laboratories / preparing accurate and detailed history / Health and safety considerations.

#### Learning outcome 5

Taxonomy and common names / endo and ectoparasites / protozoal parasites / public health risks / identification / lifecycles / parasites in body systems to include; gastrointestinal / cardiovascular / respiratory / skin / urogenital / eye / nervous system parasites / parasitic control measures and advice to clients / client compliance / pet travel and implications.

## Indicative Bibliography:

### Essential reading

Ackerman, N. (ed.) (2016), *Aspinall's Complete Textbook of Veterinary Nursing*. 3<sup>rd</sup> ed. Edinburgh: Elsevier.

Elshekha, H. M., Wright, I. and McGarry, J. (2018), *Parasites and Pets, A Veterinary Nursing Guide*. Oxfordshire: CABI.

Sirois, M. (2020), *Laboratory Procedures for Veterinary Technicians*. 7<sup>th</sup> ed. St. Louis: Elsevier.

### Other indicative reading

Aspinall, V. (2019), *Clinical Procedures in Veterinary Nursing*, 4<sup>th</sup> ed. Edinburgh: Elsevier.

Brown, M., Brown, L.C. (2018), *Lavin's Radiography for Veterinary Technicians*. 6<sup>th</sup> ed. St Louis: Elsevier.

*The Veterinary Nurse, Practical international peer-reviewed journal*. London: MA Healthcare Ltd.

*Veterinary Nursing Journal*. Abingdon: Taylor & Francis Ltd.