

Qualification title**IAT Level 3 Diploma in Laboratory Animal Science and Technology**

All units are mandatory.

Qualification	Unit title	Credit Value	Ofqual No.	Guidance on assessment methodology
IAT Level 3 Diploma in Laboratory Animal Science and Technology	Housing and biosecurity barriers in laboratory animal facilities	8	A/602/5976	Written assessment
	Disease control	12	M/602/6039	Written assessment
	Laboratory animal welfare	8	H/602/6040	Unit test
	Management of breeding colonies	12	K/602/6041	Written assessment
	The use of genetically altered animals in research	8	M/602/6042	Written assessment
	Scientific procedures	12	T/602/6043	Written assessment
	Ethics	4	H/615/1149	Written assessment
	Laboratory animal facility legislation	8	Y/615/1150	Unit test
	Animal transportation	8	J/602/6046	Written assessment
	Animal cell biology	8	L/602/6047	Written assessment
	Laboratory animal physiology	12	R/602/6048	Unit test

TITLE	HOUSING AND BIOSECURITY BARRIERS IN LABORATORY ANIMAL FACILITIES		
OFQUAL NO:	A/602/5976	LEVEL	3
CREDIT VALUE	8 credits	Unit guided learning hours	40
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N AT 1 CU2, 3, 32, 34, 38, 39		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practices and the maintenance of a known health status in animal facilities.</p> <p>This unit is designed to give learners a detailed and broad understanding of the husbandry routines and environmental conditions required to keep laboratory animals healthy and in appropriate conditions.</p>		

	Learning Outcomes
	The learner will:
1	Explain how the organisation of the animal facility maintains an appropriate health status for the animals and the scientific procedures.
2	Know relevant health and safety legislation and practices.

TITLE	DISEASE CONTROL		
OFQUAL NO:	M/602/6039	LEVEL	3
CREDIT VALUE	12 credits	Unit guided learning hours	40
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N CU2		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practice.</p> <p>This unit is designed to give learners a detailed and broad understanding of disease organisms and how they are controlled in the animal facility</p>		

	Learning Outcomes
	The learner will:
1	Identify potential disease risks in the animal facility.
2	Evaluate methods for minimising the risks from potential disease organisms.
3	Know relevant health and safety legislation and practices.

TITLE	LABORATORY ANIMAL WELFARE		
OFQUAL NO:	H/602/6040	LEVEL	3
CREDIT VALUE	8 credits	Unit guided learning hours	40
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N CU2		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practice.</p> <p>This unit is designed to give learners a detailed and broad understanding of methods used to promote high standards of animal welfare.</p>		

	Learning Outcomes
	The learner will:
1	Demonstrate a thorough understanding of how animal welfare is maintained in the animal unit.
2	Know suitable environmental conditions for laboratory animals and how they are monitored.
3	Know relevant health and safety legislation and practices.

TITLE	MANAGEMENT OF BREEDING COLONIES		
OFQUAL NO:	K/602/6041	LEVEL	3
CREDIT VALUE	12 credits	Unit guided learning hours	60
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N AT 4, 9 CU2, 36		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practice.</p> <p>This unit is designed to give learners a detailed understanding of the production of animals for scientific research.</p>		

	Learning Outcomes
	The learner will:
1	Devise appropriate breeding programmes for laboratory animals given specified conditions.
2	Evaluate methods for determining oestrus, checking mating has taken place and confirming pregnancy in a range of laboratory species.
3	Analyse breeding performance.
4	Select suitable future breeding stock.
5	Know relevant health and safety legislation and practices.

TITLE	THE USE OF GENETICALLY ALTERED ANIMALS IN RESEARCH		
OFQUAL NO:	M/602/6042	LEVEL	3
CREDIT VALUE	8 credits	Unit guided learning hours	40
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29 N		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practice.</p> <p>This unit is designed to give learners an understanding of how genetically altered animals are used in scientific research.</p>		

	Learning Outcomes
	The learner will:
1	Describe methods for producing genetically altered animals.
2	Explain the use and problems associated with genetically altered animals.
3	Know relevant health and safety legislation and practices.

TITLE	SCIENTIFIC PROCEDURES		
OFQUAL NO:	T/602/6043	LEVEL	3
CREDIT VALUE	12 credits	Unit guided learning hours	60
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N AT2, 3, 7, 8, 9 CU2, 34		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practice.</p> <p>This unit is designed to give learners an ability to discuss a range of common scientific procedures with reference to minimising animal distress and promoting good quality science.</p>		

	Learning Outcomes
	The learner will:
1	Apply methods available for withdrawing and administering substances to animals with reference to minimising animal suffering and promoting good science.
2	Describe procedures for minimising animal suffering during surgical procedures.
3	Know relevant health and safety legislation and practices.

TITLE	ETHICS		
OFQUAL NO:	H/615/1149	LEVEL	3
CREDIT VALUE	4 credits	Unit guided learning hours	20
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N, AT6, CU2		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practice.</p> <p>This unit is designed to give learners a broad knowledge of the moral and ethical implications of animal research.</p>		

	Learning Outcomes
	The learner will:
1	Understand that there is a broad range of ethical, welfare and scientific perspectives on the use of animals in scientific procedures
2	Explain that legislation requires that the justification for programmes of work is assessed by weighing potential adverse effects on the animals against the likely benefits;

TITLE	Laboratory animal facility legislation		
OFQUAL NO:	Y/615/1150	LEVEL	3
CREDIT VALUE	8 credits	Unit guided learning hours	70
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N AT6 CU2		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	<p>The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the theory supporting good animal husbandry practice.</p> <p>This unit is designed to give learners a broad knowledge of the main legislation controlling the use of animals for scientific procedures and Good Laboratory Practice legislation.</p>		

	Learning Outcomes
	The learner will:
1	Accurately apply the legislation that governs the use of research animals.
2	Explain the importance and implementation of Good Laboratory Practice.
3	Know relevant health and safety legislation and practices.

TITLE	ANIMAL TRANSPORTATION		
OFQUAL NO:	J/602/6046	LEVEL	3
CREDIT VALUE	8 credits	Unit guided learning hours	40
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	O29N CU2, CU44		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	This unit is designed to give candidates a broad knowledge of the procedures used to transport animals, and the ability to apply the main legislation controlling the transportation of animals.		

	Learning Outcomes
	The learner will:
1	Know procedures for the safe and legal transport of animals.
2	Know relevant health and safety legislation and practices.

TITLE	ANIMAL CELL BIOLOGY		
OFQUAL NO:	L/602/6047	LEVEL	3
CREDIT VALUE	8 credits	Unit guided learning hours	40
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	N/A		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the underpinning scientific principles supporting high standards of animal husbandry practice and animal welfare.		

	Learning Outcomes
	The learner will:
1	Analyse the structure and function of cells, tissues and organ systems.
2	Discuss the uses of a microscope.
3	Link the structure of chromosomes to their role in cell regulation, cell division (meiotic and mitotic) and inheritance.
4	Review the methods used in moving substances into and out of cells.
5	Know relevant health and safety legislation and practices.

TITLE	LABORATORY ANIMAL PHYSIOLOGY		
OFQUAL NO:	R/602/6048	LEVEL	3
CREDIT VALUE	12 credits	Unit guided learning hours	60
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	N/A		
Location of the unit within the subject/sector classification system	Animal Technology		
ADDITIONAL INFORMATION ABOUT THE UNIT			
Unit purpose and aim(s)	The aim of this unit is to provide the learner with the ability to demonstrate the knowledge and understanding of the underpinning scientific principles supporting high standards of animal husbandry practice and animal welfare.		

	Learning Outcomes
	The learner will:
1	Explain the structure, organisation and physiological function of the main body systems.
2	Discuss the physiological importance and provision of appropriate nutrition to laboratory animals.
3	Explain the importance of homeostasis to laboratory animals.
4	Explain how reproduction can be artificially manipulated to improve productivity and facilitate experimental procedures.
5	Explain that the sensitivity of laboratory animals to environmental stimuli is not uniform.
6	State examples of physiological changes that may occur during anaesthesia and explain how these changes could harm the animal.
7	State examples of changes that may occur in the circulatory system during times of stress or ill health.
8	Know relevant health and safety legislation and practices.