13<sup>th</sup> June 2022

#### **Animal Technician Education**







• From delivering end point assessments, to creating and writing syllabuses, to moderating coursework, IAT Education is commitment to ensuring Professional Education Standards are upheld in industries such as animal care, life and laboratory science, and beyond.

# Why do we educate and provide training to those that care for animals in research

Individuals who work with animals in research need education and training to develop their knowledge and skills at whatever task they do.



This requires a structure that allows growth and development of individuals that results in a culture of care.

#### **Institute of Animal Technology**



(IAT) has a long-established educational and training programme for research animal care.

The IAT regularly updates its examination and qualifications, and the educational structure is accredited by Ofqual as part of the national UK educational framework, plus the European Qualification Framework (EQF).





#### **Qualifications**

The IAT acts as an awarding organisation, accrediting and moderating external providers.



There are five grades of Diploma in Laboratory Animal Science & Technology, the highest being at university degree level.





The Institute welcomes applications for membership from animal technologists, animal scientists, veterinarians and others engaged in the field of animal technology and its supporting industries.

The IAT offers four levels of membership -

- Affiliate,
- Associate Member
- Member
- Fellow





#### **RAnTech**

In addition to promoting professional training for animal technologists, the IAT also runs a Registered Animal Technologist (RAnTech) scheme which identifies highly qualified and experienced individuals who are competent to accept legal responsibility for the care and welfare of animals in research establishments.



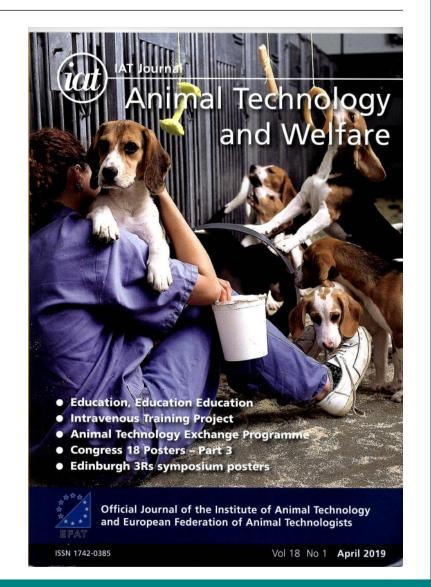


#### **Europe and ATW**

The IAT publishes three times annually the journal Animal Technology and Welfare which is the journal of both the IAT and the European Federation of Animal Technologists (EFAT), which is free and open access since January 2020.

The IAT is a founder member of EFAT, which represents those who care for laboratory animals across Europe.

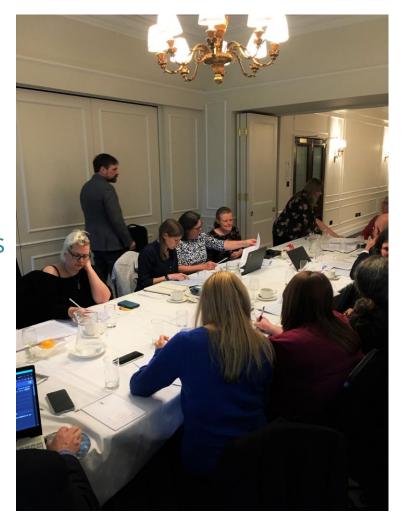
https://www.atwjournal.com/







- The IAT is an Ofqual Awarding Organisation overseeing Educational Providers that deliver our diplomas
- The IAT employs an Educational Consultant to ensure standards across Providers.
- End Point Assessors and Species
   Specialists from the pool of talented
   Animal Technologists





#### **FE Education**

IAT Level 2 Diploma in Laboratory Husbandry
IAT Level 2 Diploma in Laboratory Animal Science & Technology
IAT Level 3 Diploma in Laboratory Animal Science & Technology

(Level 3 trailblazer apprenticeship standards for animal technology)

#### **HE Education**

IAT Level 4 Diploma in Laboratory Animal Science & Technology IAT Level 5 Diploma in Laboratory Animal Science & Technology IAT Level 6 Diploma in Laboratory Animal Science & Technology\*

\*Qualification for IAT Fellowship (FIAT) & Masters Degree Entry

## IAT Diplomas Issued 2021



IAT Level 2 Diploma in Laboratory Animal Science and Technology = 100 IAT Level 3 Diploma in Laboratory Animal Science and Technology = 46 IAT Level 4 Diploma in Laboratory Animal Science and Technology = 7 IAT Level 5 Diploma in Laboratory Animal Science and Technology = 6 IAT Level 6 Diploma in Laboratory Animal Science and Technology = 6





#### **FE Providers**



Our partner providers are accredited by the IAT to run Levels 2 and 3 Diploma qualifications.

Please contact the provider of your choice directly if you require more information about their courses and fees and you can register interest in diploma courses via <a href="https://iateducation.co.uk/">https://iateducation.co.uk/</a>

# Modes of Delivery



Face to face



On-line Learning



**Blended Learning** 



## On-Line Learning



- Open source Virtual Learning Experience (VLE) allows affordable, standardised flexible access to learning materials across wide geographical areas
- 24/7 access
- Can be used behind bio-security barriers
- Allows flexible delivery and assessment strategies
- Automatic email feedback and certification

#### International Students/Learners

With the development of online tuition some of the IATs Providers are delivering IAT Diplomas across the world.

South African Veterinary Council

IAT qualifications are officially recognised for Laboratory Animal Technology theoretical training in South Africa by the SAVC.



IAT Level 2 Diploma in Laboratory Animal Husbandry	
Unit Laboratory animal housing & routines	Competency/written
The production of laboratory animals	Unit test
Laboratory animal nutrition	Competency/written
Introduction to laboratory animal facility ethics	Written
Introduction to laboratory animal facility legislation	Unit test
Laboratory animal health & husbandry	Competency/written



IAT Level 2 Diploma in Laboratory Animal Science and Technology	
Unit	
Laboratory animal housing and routines	Competency/written
The production of laboratory animals	Unit test
Laboratory animal nutrition	Competency/written
Introduction to laboratory animal facility ethics	Written
Introduction to laboratory animal facility legislation Laboratory animal health & husbandry	Unit test Competency/written
Laboratory Animal Biology Animal facility Physical Science Numeracy for Animal Technicians Communication for Animal Technicians Information Communication Technology for Animal Technicians	Written Written Written Written Written



IAT Level 3 Diploma in Laboratory Animal Science and Technology	
Unit	
Housing & Barriers in laboratory animal facilities	Written
Disease Control	Written
Laboratory Animal Welfare	Unit test
Management Breeding Colonies	Written
Use of GA Animals	Written
Scientific Procedures Ethics Laboratory Animal Facility Legislation Animal Transport	Written Written Unit test Written
Animal Cell Biology Laboratory Animal Physiology	Written Unit test



#### IAT Level 3 Diploma in Laboratory Animal Science and Technology

#### **Learning Outcomes Management of Breeding Colonies**

	Pass	Merit	Distinction	
1. Devise appropriate breeding programmes for laboratory animals given specified conditions	1.1 Summarise the basic breeding data of common laboratory animals  1.2 Describe in detail suitable breeding programmes for named species under specified conditions	Discuss the options available when breeding laboratory animals	Justify the choice of the most appropriate method given specified conditions	

# Animal Technology Apprenticeship (int) Education



- Enrol current technicians or recruit new starters
- Sign contracts
- •Induct apprentices on to the programme

Recruitment

## **Training**

- •IAT qualification
- Portfolio
- Functional skills
- Quality assurance
- Preparation for EPA

- Interview
- Case Study

**End Point** Assessment

# Developing **skills**, knowledge and behaviours



#### **Skills**

- Handle, sex and health check
- Demonstrate technical/manual skill to conduct scientific procedures and animal husbandry
- Apply legal obligations
- Ethical standards
- Apply good animal care & welfare (3Rs)
- Recognise pain, suffering/distress
- Analyse data
- Recognise and resolve problems
- Effective communication

# Developing skills, **knowledge** and behaviours



#### **Knowledge to understand**

- Business environment and role within
- How role impacts on others
- How to conduct scientific/husbandry procedures (SOPs)
- Legal/ethical responsibilities
- Husbandry/animal management systems
- Structure/function physiological systems
- Clinical signs of ill health

# Developing skills, knowledge and **behaviours**



#### **Behaviours**

- Commitment to culture of care
- Commitment to ethical standards
- Commitment to effective team working
- Confidence to work independently
- Time management
- Willingness to handle change
- Commitment to Continuous Professional Development (CPD)

# Gateway to Apprenticeship



# Complete training & assessment in workplace/formal assessments

- Collect evidence (portfolio)
- Complete IAT Level 3 Diploma in LAS&T

 Successful completion Level 2 Maths & English



# Gateway to Apprenticeship



# Formal End-Point Assessment (EPA)

Synoptic interview

- Work based scenario based case study (exam)
- Graded Apprenticeship Award



# **HE Qualifications**



#### IAT Level 4

Diploma in Laboratory Animal Science & Technology

#### **IAT Level 5**

Diploma in Laboratory Animal Science & Technology

#### IAT Level 6\*

Diploma in Laboratory Animal Science & Technology

\*Qualification for IAT Fellowship (FIAT) & Masters Degree Entry

#### **HE Provider**

# College of Laboratory Animal Science & Tecnology

Established in 2015 as a Charitable Incorporated Organisation (CIO) and delivers IAT HE Levels 4-6 Qualifications.

#### HE CPD



Next year we deliver HE in a new format using rules of combination allowing Animal Technologists to be educated in specialist areas.

A radical change with new online platforms that will allow access across Europe and Internationally to 39 different units.

- 1. These can be taken individually as CPD
- 2. Rules of Combination
- 3. To gain degree and IAT Fellowship

## HE CPD Level 4



Unit	Level	Credits	Delivery method
Training and developing staff in the workplace	4	15	On-line
Assessing competence in the workplace	4	15	On-line
Laboratory skills	4	5	Practical
Necropsy skills	4	5	Practical
Researching data and using information	4	5	On-line
Developing Communication skills	4	5	On-line
Aquatics	4	20	Workshop
Application of the 3Rs to the severity assessment framework	4	20	Workshop
Application of the Animals (Scientific Procedures) Act	4	20	Workshop
Animal welfare legislation	4	20	On-line
Physiology of pain and distress in laboratory animals	4	20	Workshop
Advanced animal husbandry, care and enrichment practices	4	20	On-line
Introduction to Genetically Altered models	4	15	Work shop + online
Genetics for Laboratory Animal Research	4	20	Work shop + online

## HE CPD Level 5



Unit	Level	Credits	Delivery method
Experimental Design & Statistics	5	30	On-line
Managing Health & safety in the Animal Facility	5	10	On-line
Introduction to First Line Management	5	20	On-line
Managing performance for First Line Managers	5	20	Workshop
Developing Coaching & Mentoring skills for First Line Managers	5	20	Workshop
Motivational skills for First Line Managers	5	20	Workshop
Minimally invasive procedures without anaesthesia	5	20	On-line
Genetically altered laboratory animals- breeding and colony management	5	20	Work shop + online
Principles of surgery	5	20	Work shop + online
Advanced anaesthesia for surgical or prolonged procedures	5	20	Work shop + online
Principles of surgery	5	20	Work shop + online
Recognition of pain, suffering and distress – species specific	5	20	Work shop + online

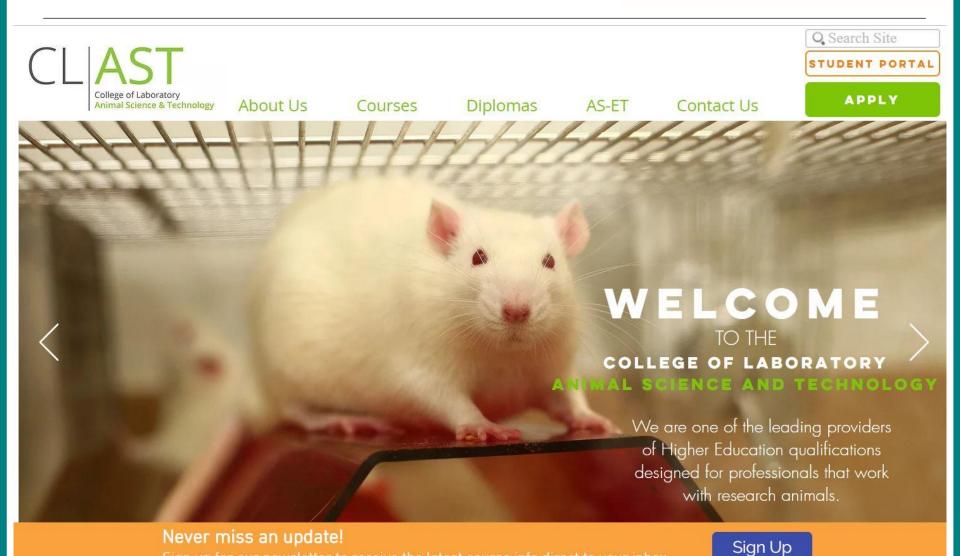
## HE CPD Level 6



Unit	Level	Credits	Delivery method
Managing and developing teams	6	20	Work shop + online
Budgeting and accountancy	6	15	On-line
Strategic thinking	6	15	Work shop + online
Influencing people with integrity	6	15	Work shop + online
Effective collaboration and communication	6	15	On-line
Project planning; principles and practices for success	6	10	Work shop + online
Advanced statistics and experimental design	6	20	Work shop + online
Pain and distress in laboratory animals.	6	20	On-line
Thesis / project	6	30	On-line
Team development and motivation	6	15	Work shop + online
Genetically altered laboratory mice- models, phenotyping principles and			
preclinical models	6	20	Work shop + online
Establishing a culture of care in research animal facilities	6	10	On-line
Managing change	6	20	On-line

#### Mailing List





# **HE Graduation**





#### HE what is on offer



Specialist education by specialists

Online, blended, practical teaching at specialist centre







#### Website

#### https://iateducation.co.uk/





#### **Diplomas**

The IAT is recognised as an Awarding Body by Ofqual and offers qualifications that encourage animal technologists to develop their knowledge, skills and attitudes so the highest standards of animal welfare and good science are maintained. IAT diplomas are flexible enough to be delivered in a range of settings, from small providers to large colleges, in the workplace, classroom, or remotely. We pride ourselves on offering the



#### **Apprenticeships**

This Apprenticeship offers employers a chance to develop the skills, knowledge and behaviours of junior technicians in preparation for the demanding role as a Licensed Animal Technician.

The apprentice will develop the technical knowledge and real practical experience, along with the functional and personal skills, required to be an effective Personal Licence Holder. These are acquired through a combination of learning in the workplace, formal off the job training and the opportunity to practice and embed new skills in a real work context.



#### **End Point Assessments**

IAT Education, on behalf the EPAO (The IAT), will assess the knowledge, skills and behaviours of the apprentice and judges whether they are fully competent and can perform their role effectively.

Once an apprentice can demonstrate they meet Apprenticeships
Assessment Plan criteria, they are ready for End Point Assessment (EPA),
and are passed through the "Gateway".

The Gateway is the door between the on-programme development stage of the apprentice and the EPA.

# Introduction to Laboratory Animal Science & Technology







Advancing and promoting excellence in the care and welfare of animals in science

13th June 2022

#### **Animal Technician Education**



