What is the New Zealand Certificate in Animal Management (NZCAM)?
The New Zealand Certificate in Animal Management is a Level 4 programme that’s delivered by Unitec’s Environmental and Animal Sciences Pathway. It’s ideal for people wanting to work with animals, or those looking to retrain for a new career in an animal-related occupation. The programme is designed to equip students with the skills they will require during both employment and further study, and includes courses which provide knowledge and understanding of a wide range of subject areas including animal husbandry and health, animal anatomy and physiology, and the working environment of the industry.

What is the New Zealand Certificate in Animal Management – Captive Wild Animals?
The New Zealand Certificate in Animal Management is split into three different strands. The Captive Wild Animals (CWA) strand of the NZCAM is a one year programme, starting in early to mid-February, and ending in early to mid-October. This programme is designed to provide graduates with the necessary skills and knowledge to gain employment as an entry level keeper in New Zealand.

Please note: This programme is delivered mostly extramurally (distance learning). Students must also attend 3 on-site block courses throughout the year, and complete a total of 280 hours work experience from an approved New Zealand zoo facility.

What is the industry looking for?
With growing public and legislative interest concerning the management of animals, animal-related industries are on the lookout for work-ready graduates. Our Captive Wild Animals strand is recognised as a leading entry-level qualification in the zoo industry, and will give you the opportunity to develop the practical and transferable skills needed to work in any New Zealand zoo.

What is the programme content?
The programme currently consists of four compulsory courses (you may know them as papers) as in Table 1 below, all of which you must pass in order to gain the New Zealand Certificate.

### Table 1: All courses are compulsory

<table>
<thead>
<tr>
<th>Level</th>
<th>Course No.</th>
<th>Course Name</th>
<th>Credits</th>
<th>Pre-requisites</th>
<th>Co-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>NSCI 4734</td>
<td>The zoo industry</td>
<td>30</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>4</td>
<td>NSCI 4740</td>
<td>The practice of zoo keeping</td>
<td>45</td>
<td>Nil</td>
<td>NSCI 5741</td>
</tr>
<tr>
<td>5</td>
<td>NSCI 5720</td>
<td>Vertebrate anatomy and physiology</td>
<td>15</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>5</td>
<td>NSCI 5741</td>
<td>Principles of captive wild animal husbandry</td>
<td>30</td>
<td>NIL</td>
<td>NSCI 4740</td>
</tr>
</tbody>
</table>

The courses cover a range of subject matter, including:

- In-situ and ex-situ conservation
- Practical zoo keeping skills
- Communication skills
- Animal behavior and welfare
- Breeding and nutrition
- Animal law and ethics
- Enrichment and conditioning
- Records and recording systems
- The zoo industry and associated organisations
- General animal health and hygiene
- Tertiary study skills
- Housing, enclosures, and their maintenance
- Health and safety in zoos
- Vertebrate anatomy and physiology
How and when do I apply?
The CWA strand starts around early to mid-February each year. As its gaining popularity, the best time to apply for the programme is prior to the 1st of November of the previous year (e.g. by the 1st of November 2018 in order to start the Programme in February 2019). This involves completing an online application form. However, if there are still places available on the programme after this date, applications will still be accepted. If possible, please state the location of your confirmed work experience placement in your application.

What is the selection criteria?
School leavers entering this programme must meet the following criteria:

- At least 36 credits at NCEA Level 2 including 12 credits in English, and;
- At least 12 credits at NCEA Level 1 in a relevant science subject (biology and chemistry are most preferred)

Or,

1. Have completed the New Zealand Certificate in Animal Care (Level 3) or equivalent.

And,

2. Provide evidence you have been accepted by one or more approved zoo facilities in New Zealand to complete 280 hours work experience with them (more information in a later section).

Entry requirements for adult students:
- Evidence of ability to study at a tertiary level
- Evidence of the equivalent NCEA credits as applicable for school leavers (above)

International students:
3. For international students where English is your second language, you will:
   i. Have achieved NCEA Level 3 and New Zealand University entrance, and/or
   ii. Be able to provide evidence you satisfy our criteria for existing English proficiency, and/or
   iii. Have achieved at least one English proficiency outcome in the last two years.

What if I don't meet the selection criteria?
If you don’t meet the selection criteria above, please consider the New Zealand Certificate in Animal Care (Level 3). If you successfully graduate from this programme, you will have the academic qualifications necessary to move up to the New Zealand Certificate in Animal Management (Captive Wild Animals).

Additionally, gaining a work experience at a zoo is very competitive. Zoos look favourably on applicants that have shown a commitment to working with animals, and a previous qualification may be seen as evidence of your commitment.

How old do I need to be?
Entry is open to anyone aged 16 years or older as at February 1st of the year of study, provided they also meet the academic requirements and gain a work experience placement at an approved zoo. Please note, zoos have differing minimum age requirements for their work experience placements, and these may be greater than the minimum of 16 years as required by Unitec (for example, Auckland Zoo’s minimum age is 18 years old).

So how does distance learning actually work?
There can sometimes be a perception that studying from a distance is easier, or there will be less content, but this is not the case. Studying from a distance is somewhat different to studying on-site, with daily lectures throughout the year, however the approximate overall study time is the same as it would be for any full time one year programme.

A large quantity of pertinent reading material will be supplied, mainly by our web-based learning platform (Moodle), and will come in a range of formats, including Microsoft Word documents, PDFs, PowerPoint presentations, or other web-based delivery methods including online books.

Lecturers will also provide online assessments which will automatically provide feedback to you. Discussion forums are set up for all students to participate in, some of which may be assessed, while others are there to create a community of learning. Lecturers and course coordinators may use Moodle to contact individual
students by email, and will often load important announcements for the whole class to view. It is imperative that you access Moodle consistently during the week (including weekends) to keep on track in all aspects of the programme. You will receive training on how to use Moodle in your first block course.

**How do the block courses work?**

All 3 block courses are 6 days in duration, and will be held at Unitec (Mt. Albert campus, Auckland). You must attend all 3, unless cross crediting particular courses.

2019 block course dates are:

1. 11th February to 16th February
2. 10th June to 15th June
3. 30th September to 5th October

Block courses are intensive, as they are designed to deliver information that is practically based, or deemed more difficult in nature. As such, they benefit from student-lecturer contact. Block courses also provide time for exams and practical assessments, more interactive student-lecturer learning environments, and build a community of learning using peer relationships and the sharing of experiences who others who are embracing similar goals and aspirations.

Block courses start early on the first day, so if you’re travelling from outside Auckland, we advise that you arrive a day early to account for any travel delays. Each block course ends at 5.45pm at the latest on the last day. Tea and coffee is provided throughout the course however food can be purchased from various outlets on campus. Please be advised that some block courses take place outside regular semester therefore some food options may be limited.

Unfortunately, we are unable to provide accommodation for those travelling from outside of Auckland, however there is plenty of accommodation available within the West Auckland area.

**How does work experience work?**

There are a few requirements you must meet in order to successfully complete your work experience placement:

- You must obtain a total of **280 hours** structured work experience at an approved facility (see next section) within the year of study. The only exception to this is if you study part time, however this is only available to full-time zoo keeping staff who have their employer’s support. In this case, you must complete your work experience within the first year.
- Until the 280 hours work experience has been authorised in writing by the facility/facilities concerned, you cannot be accepted into this programme.
- At least **40** hours (out of the total 280) must be with invertebrates, fish, amphibians, or reptiles
- At least **40** hours (out of the total 280) must be with birds
- At least **80** hours (out of the total 280) must be with mammals (with a minimum of 16 hours with at least one highly dangerous animal i.e. where keepers would under no circumstances enter the enclosure with an unrestrained animal)

<table>
<thead>
<tr>
<th>Animal group</th>
<th>Invertebrates, fish, amphibians, or reptiles</th>
<th>Birds</th>
<th>Mammals</th>
<th>Additional hours (your choice)</th>
<th>Total required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum hours work experience</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td>120</td>
<td>280</td>
</tr>
</tbody>
</table>

Please note: There is an expectation that you are physically capable of carrying out moderately physical tasks across an 8 hour working day.

Approved facilities have an obligation to instruct you in the practical skills of zoo keeping during your work experience, up to a maximum of 280 hours. The facility/facilities where you gain your work experience will depend largely on where you are based during your study period.
Facilities that have an existing agreement with Unitec are listed in the next section (Table 3). If you wish to gain work experience at any other facility, you must contact the Academic Leader first to discuss options and suitability.

Each zoo will have different cut off dates for work experience applications (some as early as July) and, as stated before, may require applicants to be older than Unitec’s minimum age of 16. There are around 35 placements given across New Zealand each year and gaining a placement is highly competitive, therefore it is strongly advised to contact zoos as soon as possible to express your interest.

We advise you to start the process of applying for a work placement and lodge your online application for the programme at the same time.

What are the approved zoo facilities?

<table>
<thead>
<tr>
<th>Zoo/Region</th>
<th>Contact Name</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland Zoo, Auckland</td>
<td>See next section</td>
<td></td>
</tr>
<tr>
<td>Wellington Zoo, Wellington</td>
<td>Harmony Wallace</td>
<td>Phone: +64 4 381 6755 Email: <a href="mailto:harmony.wallace@wellingtonzoo.com">harmony.wallace@wellingtonzoo.com</a></td>
</tr>
<tr>
<td>Orana Park, Christchurch</td>
<td>Alyssa Salton</td>
<td>Phone: +64 3 359 7109 ext. 810 Email: <a href="mailto:natives@oranawildlifepark.co.nz">natives@oranawildlifepark.co.nz</a></td>
</tr>
<tr>
<td><strong>Willowbank Wildlife Reserve, Christchurch</strong></td>
<td>Kirsty Willis</td>
<td>Phone: +64 3 359 6226 Email: <a href="mailto:kirsty@willowbank.co.nz">kirsty@willowbank.co.nz</a></td>
</tr>
<tr>
<td>Hamilton Zoo, Hamilton</td>
<td>Morele Rand</td>
<td>Phone: +64 7 838 6961 Email: <a href="mailto:morele.rand@hc.govt.nz">morele.rand@hc.govt.nz</a></td>
</tr>
<tr>
<td><strong>National Aquarium, Napier</strong></td>
<td>Rob Yarroll</td>
<td>Phone: +64 6 834 1404 Email: <a href="mailto:rob@nationalaquarium.co.nz">rob@nationalaquarium.co.nz</a></td>
</tr>
<tr>
<td><strong>Brooklands Zoo, New Plymouth</strong></td>
<td>Eve Cozzi</td>
<td>Phone: +64 6 759 6060 Email: <a href="mailto:enquiries@npdc.govt.nz">enquiries@npdc.govt.nz</a></td>
</tr>
<tr>
<td><strong>Natureland, Nelson</strong></td>
<td>Meg Rutledge</td>
<td>Phone: +64 3 548 6166 Email: <a href="mailto:meg@natureland.nz">meg@natureland.nz</a></td>
</tr>
<tr>
<td><strong>Butterfly Creek, Auckland</strong></td>
<td>Stacey McCarthy</td>
<td>Phone: +64 9 275 8880 ext. 218 Email: <a href="mailto:stacey@butterflycreek.co.nz">stacey@butterflycreek.co.nz</a></td>
</tr>
</tbody>
</table>

** These facilities cannot provide for the full scope of animal experience required as per Table 2 and therefore applicants must contact other approved facilities to gain experience in areas that cannot be accommodated by these smaller facilities.

If you live in Auckland and are wishing to obtain work experience at Auckland Zoo, please read the next section carefully. If you are wishing to obtain a work experience position for this programme in any other zoo, you will need to contact them directly.

Regardless of where you apply for work experience, please clearly stating which zoo facility/facilities you are applying to for work experience when you submit your Unitec online application.

I’m planning on gaining a placement at Auckland zoo. What do I need to know?

Auckland Zoo accepts a maximum of 14 students per year for the structured work experience relating to the New Zealand Certificate in Animal Management (Captive Wild Animals) and applicants must be a minimum of 18 years old.

Work experience is held on either a Monday or Tuesday 8.00am to 4.30pm minimum, every week from late February through to November. To be fair to all, successful applicants cannot choose their work experience day. Competition is very high for these positions.

To enable us to choose the correct students, you will be required to attach to your application at Unitec (just as you would also attach your school results and proof of residence):
1) an up to date CV, and  
2) a letter of no more than 300 words with the following information:
   - What you hope to gain from the certificate and why.
   - What your involvement has been with animals (or the environment) in the past. This does not have to be work oriented. It may include pets, volunteer work, previous study, association with other organisations etc.
   - Why you believe zoos are necessary in today’s society (with particular reference to New Zealand).

**Important: Do not send information directly to Auckland Zoo.**

There is a cut-off date for applications to Auckland Zoo of 1st October, so that the zoo and Unitec staff are able to evaluate your application. Interviews are timetabled for late October/early November. If you are successful in obtaining a work experience position, AND fulfil Unitec's minimum entry requirements for the programme, you will automatically be accepted into the programme.

*Please note: All Auckland Zoo work experience students must attend an induction course, usually scheduled within the week prior to the first Unitec block course in early February. This is a requirement of Auckland Zoo only and is for the benefit and safety of all students, staff, public and animals.*

**What will you expect from me?**
We expect students studying from a distance to be self-motivated and committed, and have excellent time management skills. You must attend all three block courses, exams, practical assessments, work experience, and to adequately cover self-directed study (research, reading, revision) and assessment writing.

**Do I need computer access?**
Yes, prospective students must have consistent access to a computer with broadband and with appropriate word processing and slide presentation software, provided by Unitec and downloadable once you’re enrolled. You need to be proficient at word processing, web browsing and e-mail communication; Unitec’s Learning and Achievement Team offer upskilling in this area.

**How much does the programme cost?**
This programme costs approximately $6964 (NZD), not including required reading (see next section), travel and accommodation costs during block courses, and work experience expenses. If studying full time, students are eligible for student loans and allowances.

**Where I can get more information on the care of captive wild animals?**

Highly recommended reading:
- Zoo keeping: An Introduction to the Science and Technology (Irwin, Stoner & Cobaugh) University of Chicago Press
- Zoo Biology and Management (Rees, P.A.) Wiley-Blackwell

Other recommended reading:
- The Welfare Ark (Margodt K.) University Press
- The Zoo Story (de Courcy C.) Penguin Books
- Second Nature (Shepherdson D.J.) Smithsonian Institute
- Ethics on the Ark (Norton B.J. et al) Smithsonian Institute
- Wild Mammals in Captivity (Kleiman D.G. et al) University of Chicago Press
- Last Animals at the Zoo (Tudge C.) Island Press
- Zoo Culture (Mullen B. and Marvin G.) University of Illinois Press
How do I get further information about the programme?
Programme Advisors at Student Central: Email: study@unitec.ac.nz;
Telephone: 0800 10 95 10

If you have any other specific questions, please contact the
Academic Leader Dr Lorne Roberts via email or phone:
Email: lroberts2@unitec.ac.nz; Telephone: (09) 815 4321 ext. 7088