

Course outline | Ngā Whakamārama 2025

BIOL429-25S1 Conservation Genetics 0.125 EFTS 15 Points 17 Feb – 30 May 2025

Course description | Whakamahuki

This course addresses contemporary issues in conservation genetics with a strong emphasis on the conservation genetic management of threatened captive and wild populations in collaboration with Māori partners including rūnanga, hapū, iwi, iwi corporations and trusts, and diverse stakeholders including conservation agencies, conservation trusts and community groups. Topics include the genetic consequences of small population size, intra- and interspecific hybridisation, and the resolution of taxonomic uncertainties.

Course Coordinator | Kairuruku Akoranga

Prof Tammy Steeves, Julius von Haast 533, tammy.steeves@canterbury.ac.nz

Teachers | Pūkenga

Prof Tammy Steeves, Julius von Haast 533, tammy.steeves@canterbury.ac.nz Dr Aisling Rayne, Research Fellow, aisling.rayne@canterbury.ac.nz

Graduate Profile | Āhuatanga Tāura

As a student in this course, I will develop these <u>UC Graduate Attributes</u> (GP) including <u>Bicultural competence</u> <u>and confidence (BiCC) Kaupapa (K):</u>

- GP1 Critically competent in a core academic discipline.
- GP2 Employable, innovative and enterprising.
- GP3 BiCC: K1 A process of self-reflection on the nature of 'knowledge' and 'norms'; K2 The nature of contemporary Māori organisational structures; K3 Traditional and contemporary realities of Māori society; K4 The Treaty of Waitangi and Aotearoa New Zealand's bicultural history; K5 The process of colonisation and globalization; K6 Other indigenous models of development, knowledge, and behaviours; K7 Application of bicultural competence and confidence in a chosen discipline or career.
- GP5 Globally aware.

Course Learning Outcomes | Hua Akoranga and Associated Assessment | Aromatawai

As a student in this course, I will develop the ability to:

- demonstrate an understanding of the advantages and disadvantages, limitations and uses of genetic data to address issues of conservation concern. (assessment tasks: posts, group presentation, final exam)
- effectively communicate contemporary issues in conservation genetics including the genetic consequences of small population size, intra- and interspecific hybridisation, and the resolution of taxonomic uncertainties to Treaty partners and diverse stakeholders. (assessment tasks: posts, presentation, final exam)

Transferable Skills Register | Pūkenga Ngaio and Associated Assessment | Aromatawai

As a student in this course, I will develop the following skills:

- Synthesising information. In everyday life and in many job situations you will be required to read information from different sources, construct your own understanding and shape your own viewpoint. This skill will be developed during seminar discussions when answering questions from selected readings, following seminar discussion when formulating social media contributions, and during preparation for a formal presentation that will provide specific conservation genetic management advice to a diverse group of end-users.
- Analysing and interpreting conservation genetic data. Important for research, as well as in a number of private- and public-sector organisations. *This skill will predominantly be developed when answering questions from selected readings.*
- Effective verbal communication of conservation genetic theory and principles to diverse end-users. Expressing yourself clearly and concisely is important when you are attending meetings, having a telephone conversation, giving presentations, or teaching/training. *This skill will predominantly be developed following seminar discussion when formulating social media contributions and during preparation for a formal presentation that will provide specific conservation genetic management advice to a diverse group of end-users.*
- Effective written communication regarding conservation genetic theory and principles to diverse endusers. Many employers require employees to have good written communication skills. *This skill will predominantly be developed during preparation for the final exam.*

Course Expectations | Mahi ā-Ākonga

You will be held to the same expectations across all 4th year courses, which are:

- Read <u>all</u> assigned papers prior to coming to the session, and come prepared with answers to any guiding questions and further discussion questions
- During tutorials, be actively engaged! For example:
 - Ask questions, contribute to the discussion
 - \circ ~ Take notes, acknowledge or emphasise other students' questions or points
 - Turn camera on if you are on zoom when possible

You are required to allocate 150hrs to this course outside of exams. These hours should include:

- Attending class
- Learning course materials, preparing presentations, reading assigned papers
- Reading additional papers beyond the assigned ones to delve further into topics you do not know
- Refreshing yourself on core knowledge, e.g., by reading textbooks
- Working and studying with classmates outside of class

You are now leading your own learning: grow your knowledge, expand your skills, and ask questions!

Supporting resources

• Forsdick et al. (2022) Current applications and future promise of genetic/genomic data for conservation in an Aotearoa New Zealand context. *Science for Conservation*: 337. Department of Conservation. 57 pp. *Available on LEARN.*

Assessment | Aromatawai

	marks	due date
Pre-post ¹	0%	Fri 28 Feb
Posts, including reflections ²	20%	
Genetics of small populations		Fri 14 Mar
Intraspecific hybridisation		Fri 28 Mar
Interspecific hybridisation		Fri 2 May
Resolving taxonomic uncertainties		Fri 9 May
Optional re-post		Fri 30 May
Conservation genetic recommendations ³		
Team presentation (practice) ⁴	0%	Wed 23 May
Team presentation (actual)	40%	Wed 30 May
Final exam	40%	To be confirmed

¹Must be completed to receive marks for subsequent posts.

²Individual assessments worth 20% overall: Based on top three posts including one optional re-post based on any of the four original posts.

³Includes individual (30%) and group (10%) assessment.

⁴Must be completed to receive marks for actual team presentation. Seminar: 30 min each per team.

You must attain an average score of at least 40% for the internal assessment a score of at least 40% for the final exam, AND score at least 50% overall for the course, to be awarded a passing grade.

Seminar schedule

Whereas Seminar 1 will be predominantly lecturer-led, Seminars 2-5 will be predominantly student-led. Seminar 6 will be team presentation practice sessions with the lecturers only (30 min each). Seminar 7 will be the actual team presentations with everyone (lecturers and students), and follow a 'Treaty Partner/Stakeholder meeting' format. See 'Course Assessment' on LEARN for details.

Seminar 1 Fri 21 Feb, 2 hours, Scene setting - Tammy, Aisling

Seminar 2 Fri 7 Mar, 2 hours, Genetics/genomics of small populations - Tammy

Seminar 3 Fri 21 Mar, 2 hours, Intraspecific hybridisation - Tammy

Seminar 4 Fri 4 Apr, 2 hours, Interspecific hybridisation - Tammy

Seminar 5 Fri 2 May, 2 hours, Resolving taxonomic uncertainties - Tammy

Seminar 6 Fri 23 May, Conservation genetic recommendations PRACTICE - Tammy, Aisling 30 min per team beginning: 9.00am, 9.30am, 10.00am, 10.30am

Seminar 7 Fri 30 May, 2 hours, Conservation genetic recommendations ACTUAL – Tammy, Aisling

RULES, REGULATIONS, AND WHAT TO DO WHEN THINGS GO WRONG

[updated March 2023]

If in doubt: ASK! The course coordinator is happy to answer questions. All staff involved in the course are available for advice on specific issues.

What do I do if I have to miss a test/exam or if my performance was impaired?

In Biological Sciences, we require a satisfactory level of achievement in both the theoretical aspects of the discipline and in practical activities. **This means you must attend all class activities (labs, tutorials, fieldtrips)** and submit all items of assessment unless you have a very good reason not to (e.g. medical reasons) and if this has been approved by your course coordinator.

If you feel that **illness**, **injury**, **bereavement**, **or other extenuating circumstances beyond your control** prevented you from completing a **test/exam** worth 10% or more of the total course assessment, or if these circumstances affected your performance in such assessments, you should apply for Special Consideration. Applications for Special Consideration should be submitted via the Special Consideration website http://www.canterbury.ac.nz/study/special-consideration/ within five working days of the assessment or its due date. You should also notify the course coordinator. If you apply for Special Consideration because of medical reasons, you should visit a doctor within a reasonable timeframe (application form available on the website above or from the Student Health Centre).

The Special Consideration provisions are intended to assist students who have covered the work of a course but have been prevented by illness or other critical circumstances from demonstrating their mastery of the material or skills at the time of a text/exam – **they do not excuse you from doing the test/exam** within a reasonable time agreed with the course coordinator.

What do I do if I have to miss a quiz or assignment or if I need an extension?

You cannot apply for Special Consideration if you miss an assessment that is not a test/exam, such as a quiz, lab report, essay, literature review or other assignment, or if the test/exam is worth less than 10% or more of the total course assessment. If this happens or if you need an extension because of **illness**, **injury**, **bereavement**, **or other extenuating circumstances beyond your control**, please contact the course coordinator and arrange an alternate activity and/or submission date. You should also do this if you have to miss a laboratory, tutorial or field trip.

What are other valid reasons to miss an assessment or mandatory course activity?

The Special Considerations policy (https://www.canterbury.ac.nz/about/governance/ucpolicy/student/special-considerationprocedures-and-guidelines/) outlines only a few kinds of activities that UC considers valid reasons for missing an assessment or mandatory course activity other than those outlined above. These include **involvement in international or national representative sport or cultural groups.** Holiday trips, birthday parties, weddings, work-related commitments etc. are not given special status in this University policy. Please contact your course coordinator to ask for an alternate activity and/or submission date if you are eligible.

Special Consideration for late discontinuation of a course

Students prevented by **extenuating circumstances** from completing the course after the final date for withdrawing, may apply for Special Consideration for late discontinuation of the course. Applications must be submitted via <u>http://www.canterbury.ac.nz/study/special-consideration/</u> no later than five working days after the examination period has finished.

Academic Integrity

It is the responsibility of each student to be familiar with the definitions, policies and procedures concerning academic misconduct/dishonest behaviour. Instances of academic misconduct will be dealt with in a serious and appropriate manner. Students should refer to: https://www.canterbury.ac.nz/about/ako/academic-guality/academic-integrity/

Plagiarism

It is essential that you are aware that plagiarism is considered a very serious offence by the academic community, the University and the School of Biological Sciences. Plagiarism is defined as taking content from another work or author and presenting it, without attribution, as if it is your own work. Content here includes text (sentences or major parts of sentences), display items (graphs and tables), and overall structure (the detailed sequence of ideas). Plagiarism includes:

- re-use of previous assignments (even if each individual sentence has been rephrased to say the same thing in different words, if the overall structure is re-used).
- copying of another student's work (with or without their consent).
- the unreferenced use of published material or material from the internet, e.g. cutting and pasting of paragraphs or pages into an essay.
- the generation of text using artificial intelligence technology without disclosure and when it is not intended to be part of an assignment.

For most pieces of in-term assessment you will be given information concerning the use of direct and indirect quotes from previously published work. If you have any doubt about the appropriate use of published material, please speak with an academic staff member. If you are unsure what plagiarism is, seek advice.

It is a School policy that courses will likely that you submit work electronically for subsequent analysis of originality using *Turnitin*. Students agree that by taking courses in BIOL, assessments may be submitted to Turnitin.com for textual similarity review. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use as posted on the Turnitin.com site.

Where do I hand in assignments and then collect them once marked?

All assignments should be submitted as directed by the course coordinator. Typically, this will be electronically via Learn for on-line grading and for analysis in *Turnitin*. If a hard copy is requested, assignments should be placed in the designated collection boxes in the foyer of the 2nd floor of the School of Biological Sciences (Julius von Haast building, at the top of the stairs). All assignments must be accompanied by a cover sheet signed by you stating that the submitted work is not plagiarised. Cover sheets are available on top of the collection boxes, or you can download one from the Biology website (http://www.canterbury.ac.nz/media/documents/science-documents/assignment-coversheet.pdf).

Marked assignments will be returned through Learn or, if in hard copy, can be collected from the School of Biological Sciences reception, unless directed otherwise by the course coordinator. Teaching staff will endeavour to return work as soon as possible, and should contact you if there are likely to be any delays that will prevent return within the maximum 4-week timeframe.

What if I can't get it finished in time?

Reports and assignments should be handed in on time. Extensions may be granted if you have a valid reason (see above). If you require an extension, you should request one from the course coordinator (or the lecturer responsible for marking the work), with as much notice as possible. Please do this BEFORE the deadline for the assignment. If you have been given an extension and you have been asked to submit a hard-copy of your work, you should hand the work DIRECTLY to the course coordinator (do not put it in the drop box as it may not be cleared after the due date).

If an extension has not been granted:

- work handed in within 1 hour of the deadline: penalty of up to 5 percentage points of the mark for the assignment (e.g., a mark of 75% might be reduced to 70%).
- work handed in 1 24 hours after the deadline: penalty of 10 percentage points of the mark for the assignment (e.g., a mark of 75% is reduced to 65%).
- work handed in 1 7 days after the deadline: penalty of 15 percentage points of the mark for the assignment (e.g., a mark of 75% is reduced to 60%).
- work handed in more than 7 days after the deadline will not be marked or earn credit.

What if I have written more than the word or page limit?

If there is a word limit on an assignment, it is usually there to stop you doing too much work and to encourage you to write succinctly. You can be up to 10% over without too much worry, but if the length increases beyond that your mark may suffer due to failure to follow the requirements. If you find yourself way over the word limit talk to the lecturer concerned about how to get your assignment to an acceptable length. Unless specifically advised that there is flexibility, you must adhere to the word limit indicated.

What if I fail part of the course?

In Biological Sciences, we require a satisfactory level of achievement in both the theoretical aspects of the discipline and in practical activities. This means you must attend all class activities and submit all items of assessment unless you have a very good reason not to (e.g. medical reasons). A student must attain an average score of at least 40% for in-course assessments (e.g. assignments, reports, quizzes) and an average score of at least 40% in the exam and/or tests, AND score at least 50% overall for the course, to be awarded a passing grade. See the course outlines for clarification of the assessment items included in each category and ask the coordinator if you are still unsure.

What's the best way to give feedback?

We welcome constructive feedback at all times – help us to make this a valuable course for you. We endeavour to remain approachable at all times. If you would rather give feedback anonymously, please use the online course survey or talk to lab demonstrators, or your class rep (who will all report back to the staff-student liaison committee that includes a representative from each of the undergraduate classes). Class representatives will be selected from each class at the start of course.

What's the best way to complain?

If you feel you have not been fairly treated during this course, please raise the issue with the lecturer or course coordinator in the first instance. Other avenues include your class rep., who can raise issues anonymously, or the UCSA education coordinator.

Grading

A+	90% or above
Α	85 – 90
A-	80 – 84
B+	75 – 79
В	70 – 74
B-	65 – 69
C+	60 - 64
С	55 – 59
C-	50 – 54

A restricted pass (R) **may** be awarded to those who are close to a pass (i.e. an overall score of 48-49.9%) AND who have achieved at least a 40% overall score in both in-course assessment and tests/exams. If an R grade is awarded you gain credit for the course but **cannot continue into papers that require this course as a pre-requisite**. NB. The R grade is only available at 100 and 200 level - it cannot be awarded for third year papers.

Failing grades: D 40-49 E 0-39