

Course Title: **Ecological Concepts I**

Course Code: **ECOL603**

Descriptor Start Date: **01/03/2021**

POINTS: **15.00**

LEVEL: **6**

PREREQUISITE/S: **BIOL502 or ECOL501**

COREQUISITE/S:

RESTRICTION/S:

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 150

PRESCRIPTOR

An in-depth treatment of unifying concepts in ecology.

LEARNING OUTCOMES

1. Demonstrate understanding of optimal foraging theory.
2. Discuss biotic and abiotic drivers of ecosystem functioning.
3. Evaluate the role of ecological feedback mechanisms.
4. Discuss the importance of elemental cycles.
5. Present work at the appropriate academic standard.

CONTENT

- Individuals mass and energy balance, functional responses, modes of mass and energy acquisition
- Spectral attenuation as a structural agent
- Top-down and bottom-up ecosystem processes
- Trophic groups, interactions, microbial loop and food webs
- Stochastic and deterministic patterns, dispersal, drift and extinction
- Biogeochemical cycles
- Resource limitation, predation-prey relationships, ecosystem stasis

Disclaimer: Course descriptors may be amended between teaching periods/semesters

LEARNING & TEACHING STRATEGIES

This course will be taught using a combination of lectures, tutorials, seminars and field trips.

ASSESSMENT PLAN

Assessment Event	Learning Outcomes
Weekly quizzes (30 minutes each)	LO1, LO2, LO3, LO4
Assignment (2000 words)	LO2, LO3, LO5
Test (1 hour)	LO1, LO2, LO3, LO4, LO5

Grade Map	MAP1
	A+ A A- Pass with Distinction
	B+ B B- Pass with Merit
	C+ C C- Pass
	D Fail

Overall requirement/s to pass the course:

Students must achieve all learning outcomes in order to pass this course.

LEARNING RESOURCES

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For further information, contact: Te Ara Hauora A Putaiao - Faculty of Health & Environmental Science

Principal Programme:	HA1041, Bachelor of Science
Related Programme/s:	AK1041 Bachelor of Science AK1042 Graduate Diploma in Science AK1043 Graduate Certificate in Science AK2040 Bachelor of Advanced Science (Honours) AK3750 Diploma in Applied Science

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