

Genetics & Agriculture

Bachelor of Science (BSc) Genetics



Description

Discover the essential role of genetics and genomics in plant and animal breeding, focusing on species critical to New Zealand's economy.

- Combine theoretical knowledge with practical skills to analyse genetic variations and apply modern selective breeding techniques.
- Develop expertise in computational tools, statistics, and bioinformatics essential for advanced breeding methods.
- Learn about Te Ao Māori, including mātauranga and tikanga, and how they intersect with modern genetics and genomics.
- Prepare for careers in research, academia, or applied fields, particularly in New Zealand's thriving primary breeding industry, where these skills are in high demand.

Recommended structure

100-level

Core papers:

CHEM 191

CELS 191

Suggested papers:

AGRI 101

BIOC 192

BIOL 123

COMP 120

STAT 110 OR 115

200-level

Core papers:

GENE 221

GENE 222

GENE 223

Suggested papers:

AGRI 221

BTNY 201

INFO 204

STAT 210

300-level

Core papers:

GENE 312

GENE 314

GENE 315

Suggested papers:

AGRI 323

PLB 301

ZOOL 313

GENE 360*

Suggested minors: Statistics, Plant Biotechnology, Botany, Māori Studies, Agricultural Innovation.

*Recommended for GENE majors planning to go on to post-graduate studies such as BSc (Hons), PgDipSci, MSc and PhD.



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