



THE UNIVERSITY
OF AUCKLAND

NEW ZEALAND

Te Whare Wānanga o Tāmaki Makaurau

Postgraduate Diploma and Masters Degree Bioscience Enterprise



PGDipBioent graduates from the inaugural 2006 class.



Advanced training for scientists who wish to learn more about the business and legal aspects of science and technology enterprises - particularly in the life sciences sector.

Jointly presented by the School of Biological Sciences, the Business School and the Law School in partnership with New Zealand Trade & Enterprise

New Zealand
TRADE & ENTERPRISE 



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Goals of the programme

Business and science often seem like two different worlds. The Postgraduate Diploma in Bioscience Enterprise and Master of Bioscience Enterprise represent a new interdisciplinary programme which aims to give science graduates the skills to move with confidence in both. You will gain skills in the financial, marketing and legal aspects of science which will prepare you for a wide range of job opportunities in science and business enterprises. The programme also offers networking opportunities for students to meet practitioners and leaders from industry and business. Scientists graduating from this programme will be business-savvy and comfortable in a business environment, and may give a company a competitive edge or be the key to a successful start-up.

Employment opportunities

Potential opportunities for graduates include marketing, market-analysis, product development, the regulatory and business development aspects of research commercialization in biotech companies, pharmaceutical companies, reagent or devices companies, the food and beverages industry, in technology transfer offices at Universities and Crown Research Institutes, and as analysts and consultants in business development firms, finance and investment firms, and Government agencies.

Recent internships

Students in the Masters programme spend six months as interns in a company or government organisation to carry out a business research project which will be presented as a thesis.

Recent internships include:

- Fisher & Paykel Healthcare
- Neuren
- CoDa Therapeutics
- KODE Biotech
- HortResearch
- Scion
- NZ Trade & Enterprise
- Ministry of Research, Science and Technology
- Cranleigh Merchant Bankers

Enrolment

Candidates for entry in the PGDipBioent must have a bachelors degree related to the life sciences eg. BSc with a major or specialisation in Biological Sciences, Bioinformatics, Biomedical Science, Food Science, Medicinal Chemistry, Pharmacology, or Psychology; or a BE in Biomedical Engineering; or a BPharm; or a BTech in Biotechnology.

Enrolment can be fulltime (first semester start only) or part-time. The latter will appeal to employees who wish to upskill and extend their knowledge base. All SCIENT classes are held on weekday evenings 4-7pm.

Entry in the Masters programme requires completion of the PGDipBioent with a B average in at least 90 points. The Masters programme consists of two compulsory courses and a 6-month internship in a company or Government organisation during which candidates research a science-business project and write a thesis.

Bioscience Enterprise Forum

Students are required to attend the Bioscience Enterprise Forums which are scheduled on Fridays 4-6pm every two weeks during semesters. These forums consist of a seminar given by senior industry practitioners followed by a social function to facilitate networking between students and corporate people.

Postgraduate Diploma in Bioscience Enterprise (PGDipBioent) - year one

Prerequisite: A BSc or BSc(Hons) with a major or specialization in Biological Sciences, Bioinformatics, Biomedical Science, Food Science, or Medicinal Chemistry, Pharmacology or Physiology; or a BE in Biomedical Engineering; or a BPharm; or a BTech in Biotechnology.

Requirement:

75 points: SCIENT 701-705

45 points: electives from a wide range of 700 - level courses related to the life sciences.

SCIENT 701 (first semester) (15 Points)

Accounting and Finance for Scientists

Builds upon scientific numeracy in exploring the: sources, uses and reporting of accounting and financial information in science-based enterprises; application of capital budgeting and valuation theory to science-relevant situations; and key bases for financially informed project and enterprise decision-making and the management of economic resources.

SCIENT 702 (first semester) (15 Points)

Marketing for Scientific and Technical Personnel

Examines the: intermediaries and end-users of technical and research-related applications, products and services; their "customers", "value chain", "marketing", and related concepts in both highly-regulated and open markets; and how effective science-related marketing strategies and promotional efforts are developed and communicated.

SCIENT 703 (second semester) (15 Points)

Frontiers in Biotechnology

An examination of how breakthrough discoveries in contemporary life sciences flow through to commercialisation. Current and emerging applications of biotechnology; includes guests lectures from New Zealand's leading biotechnologists and case studies focused particularly on medical applications.

SCIENT 704 (second semester) (15 Points)

Law and Intellectual Property

An explanation of the legal system including basic concepts of contract and corporate law in a biotechnology context. Emphasis will be upon intellectual property laws in particular patent law and practice and other means of protecting new ideas, discoveries and inventions. Also covered will be technology licensing and basic competition and marketing law.

SCIENT 705 (second semester) (15 Points)

Research Commercialisation

Integrative exploration of common theories, processes and models involved in commercialising scientific research. Topics include technology transfer, technological entrepreneurship, commercial potential, risk, and valuation assessment and related tools. Utilises multiple learning approaches including case studies and a "hands-on" term project.

Prerequisite: SCIENT 701 and 702

Master of Bioscience Enterprise (MBioent) - year two

Prerequisite: PGDipBioent

Requirement:

90 points: SCIENT 794 Thesis

30 points: SCIENT 721, 722.

SCIENT 721 (15 Points)

Product Development and Regulatory Environments

Aims to give students an understanding of the stages of product development for therapeutics, diagnostics and medical devices, as well as the regulatory requirements affecting product development in the Life Sciences. Project management tools and processes will also be covered in the context of product development.

SCIENT 722 (15 Points)

Current Issues in Bioscience Enterprise

An exploration of trends and developments of importance to Life Sciences-related enterprises and industries. Utilises multiple learning approaches - e.g., independent readings, case studies, projects, guest speakers, presentations and related discussions.

SCIENT 794A and B (90 Points)

Thesis

Research project addressing a topic relevant to the commercialisation of research. Overseen jointly by both academic and industry supervisors. Subject to approval from the Programme Director, project can be carried out while employed in a science or business enterprise.