



CSU Channel Islands
MS/MBA PROGRAM
Department of Extended Education
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DUAL DEGREE PROGRAM:

Master of Science
BIOTECHNOLOGY

Master of
BUSINESS ADMINISTRATION





INTRODUCING THE MASTER OF SCIENCE IN BIOTECHNOLOGY AND THE MASTER OF BUSINESS ADMINISTRATION DUAL DEGREE PROGRAM

I am pleased to introduce our innovative Master of Science in Biotechnology and Master of Business Administration Dual Degree Program to the Ventura County community. The development of this program is a direct result of suggestions the University received from the local biotechnology industry on workforce needs. I am delighted that meetings with business leaders have rapidly borne fruit in the form of an innovative degree program, the first of its kind in the Western United States.

In this era of globalization, it is important we pay attention to national and international trends. Consequently, the University conducted a national survey of 10,000 biotechnology professionals and found that 89% responded positively regarding the necessity for a dual graduate degree in biotechnology and business.

The subsequent development of our MS Biotechnology/MBA was supported by a grant and the curriculum developed with the support of leaders from local biotechnology companies. The local and national need for this dual degree is clear and the University has now delivered.

If you are already working in the biotechnology industry or considering doing so, I encourage you to evaluate how CSU Channel Islands might better prepare you for the exciting future.

Richard R. Rush
President



MASTER OF SCIENCE IN BIOTECHNOLOGY AND MASTER OF BUSINESS ADMINISTRATION DUAL DEGREE PROGRAM

The Master of Science in Biotechnology and Master of Business Administration is an innovative dual degree program offered to meet the regional and national needs of a well-educated workforce in the biotechnology industry. Drawing on courses currently offered through the existing MS Biotechnology and MBA programs, the interdisciplinary curriculum blends key components of biological sciences and business at the graduate level. By recognizing the importance of combining biotechnology and business in a dual degree program, our biology and business/economics faculty present a forward-looking and progressive program geared for those intending to develop careers in the biotechnology industry.

PROGRAM OVERVIEW

The program combines rigorous scientific training in biotechnology with graduate course work and experience in business disciplines. It includes foundational courses to provide a knowledge base for non-biology or non-business undergraduate majors, core courses in both the biotechnology and business disciplines, as well as elective courses on cutting-edge topics. A distinguishing feature of this dual degree program is the culminating project which involves student teams. They work on real-world problems and applications of biological sciences to the marketplace as well as application of business strategies in the biotechnology industry. The courses are led by a dynamic combination of CSUCI faculty and industry professionals. To meet the needs of working adults, courses are offered evenings, partially online (selected courses), and in accelerated formats.



REQUIREMENTS FOR THE DUAL DEGREE PROGRAM

ADMISSION REQUIREMENTS

- Applicants must have a BS/BA degree in Biology, Chemistry, Biochemistry, Biotechnology, Molecular Biology or a Business and Economics related discipline. Applicants with a BS/BA degree in any field and equivalent work experience in one of the above fields may be admitted and must fulfill the foundation courses requirements before taking the core courses and electives in the dual degree program.
- Applicants seeking admission to the dual degree program must be officially admitted into CSUCI as graduate students.
- Applicants will be evaluated by the program admissions committee which will consider applicants in the context of the total applicant pool using general admission standards. The following materials are required for the evaluation and admission process.
 - Applicants must submit one transcript from every university attended and the Graduate Record Examination (GRE) test score.
 - Applicants who have received their undergraduate degrees from a university where English is not the language of instruction or have studied fewer than two years at a university where instruction is in English must submit their Test of English as a Foreign Language (TOEFL) score.
 - A one page "Statement of Purpose" from the applicant and two letters of recommendation from people able to judge the applicant's capacity for both academic and professional success must be submitted.

REQUIREMENTS FOR THE DEGREE PROGRAM (71 UNITS*)

* Assumes that at least one set of the Foundation Courses listed below has been completed in a business or science undergraduate degree program.

REQUIRED FOUNDATION COURSES:

Required Foundation Courses in Biology and Chemistry for students without a BS in the science disciplines (16 units):

CHEM 110 Chemistry of Life	4
BIOL 201 Principles of Cell and Molecular Biology	4
BIOL 300 Cell Biology	4
BIOL 400 Molecular Biology	4

Required Foundation Courses in Business and Economics for students without a BS/BA in Business or Economics or a related discipline (16 units)

BUS 500 Economics for Managers	3
BUS 502 Quantitative Methods for Decision-Making	3
BUS 504 Introduction to Accounting & Finance	4
BUS 506 Principles of Management and Marketing	3
BUS 508 Business Ethics and Law	3

REQUIRED COMMON CORE COURSES IN THE DUAL DEGREE PROGRAM (9 UNITS):

MGT 471 Project Management	3
BIOL/BUS 610 Team Project	6



REQUIRED COURSES IN MASTER OF SCIENCE IN BIOTECHNOLOGY (22 UNITS):

Required Core Courses (15 units)

BINF 500 DNA and Protein Sequence Analysis	3
BIOL 502 Techniques in Genomics and Proteomics	2
BIOL 503 Biotechnology Law and Regulation	3
BIOL 504 Molecular Cell Biology	3
BIOL 510 Tissue Culture Techniques and Stem Cell Technology	3
BIOL 601 Seminar in Biotechnology and Bioinformatics	1

SCIENCE ELECTIVE COURSES (7 UNITS)

A minimum of 7 units from the following courses:

BIOL 505 Molecular Structure	4
BIOL 507 Pharmacogenomics and Pharmacoproteomics	3
BIOL 508 Advanced Immunology	4
BIOL 509 Plant Biotechnology	4

TOTAL UNITS FOR SCIENCE STUDENTS:

Foundation courses in business	16
Core science courses	15
Core business courses	18
Common courses	9
Electives in science	7
Electives in business (Double counted)	6
Total units	71

REQUIRED COURSES IN MASTER OF BUSINESS ADMINISTRATION (24 UNITS):

Required Core Courses (18 units)

BUS 510 High Performance Management	3
BUS 520 Strategy and Leadership	3
BUS 530 Managing Business Operations	3
BUS 540 Financial Reporting and Analysis	3
BUS 550 The Contemporary Firm	3
BUS 560 The Entrepreneurial Manager	3

BUSINESS ELECTIVE COURSES (6 UNITS)

Double Counted:

BINF 500 DNA and Protein Sequence Analysis	3
BIOL 503 Biotechnology Law and Regulation	3

TOTAL UNITS FOR BUSINESS STUDENTS:

Foundation courses in science	16
Core science courses	15
Core business courses	18
Common courses	9
Electives in science	7
Electives in business	6
Total units	71

APPLICATION PROCESS

Applicants seeking admission must be officially accepted into the University, as well as the academic area.

PROGRAM DIRECTORS:

Dr. Ching-Hua Wang (Biology)
 Dr. William Cordeiro (Business and Economics)
 Dr. Mary Fleck (Associate Director)

TO RECEIVE APPLICATION MATERIALS:

CSU CHANNEL ISLANDS

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