

Master of Science **BIOTECHNOLOGY**

Advanced Training in Life Sciences
Industry relevant content

NPSMA NATIONAL
PROFESSIONAL
SCIENCE MASTER'S
ASSOCIATION
Member



Master of Science in Biotechnology

California State University Channel Islands provides students practical, advanced training in the sciences. The program includes courses from scientific fields such as molecular and cellular biology, genomics and proteomics, immunology and stem cell sciences along with industry relevant content such as project management, biotech law, regulatory affairs, quality control and clinical trials.

Designed for working professionals, classes are both in-person and online formats offered during evenings or weekends based on schedule availability.

Two emphases are offered within this degree program:

- Biotechnology
- Stem Cell Technology & Laboratory Management

Both emphases have a common core requirement and a series of required and elective courses.

Choose one of two emphases



Channel Islands

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The MS Biotechnology Curriculum

offers students hands-on experience in wet lab work with the latest technology and equipment. In addition to training in laboratory techniques used in research and development, students gain an understanding of legal and intellectual property issues, and develop skills and attributes important in business and biotechnology entrepreneurship. The Program takes a multi-disciplinary approach that encourages collaboration and effective idea expression.

BINF - 500 DNA and Protein Sequence Analysis (3 Units)
BIOL - 502 Techniques in Genomics and Proteomics (3 Units)
BIOL - 503 Biotechnology Law and Regulation (3 Units)
BIOL - 504 Molecular Cell Biology (3 Units)
BIOL - 505 Molecular Structure (4 units)
BIOL - 510 Tissue Culture Techniques and Stem Cell Technology (3 units)

Affordable, Accessible, Convenient



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“Excellent program for a working professional that accommodates my work hours, and keeps me abreast of the contemporary genetic engineering innovations and techniques.”

Olga Kuzenna,
MS Biotechnology &
Bioinformatics
Class of 2017

Biotechnology Emphasis

Students are prepared for a wide range of careers in the biotechnology industry including research and development for biopharmaceuticals. Students enrolled in this concentration will receive training in the theory and methods of biotechnology with a focus on industrial applications.

Biotechnology Curriculum: 33 Total Units

Core courses: 19 units

Required for emphasis: 8 units

BINF - 514 Statistical Methods in Computational Biology (3 units)

BIOL - 600 Team Project (4 units)

BIOL - 601 Seminar Series in Biotechnology (1 unit)

Electives: 6 units



Practical training in the sciences



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Stem Cell Technology and Laboratory Management Emphasis

Focuses on the development of stem cell technology. Prepares students for careers in research and development involving stem cells and culture methods and proper management of stem cell culture laboratories. Advances current knowledge of stem cells and factors that regulate their growth and development. Emphasizes how advances in cell and molecular biology and tissue engineering can be applied to the use of stem cells in diseases and regenerative medicine including the social and ethical impacts of stem cell technology.

Stem Cell Technology and Laboratory Management Curriculum:

35 Total Units

Core courses: 19 units

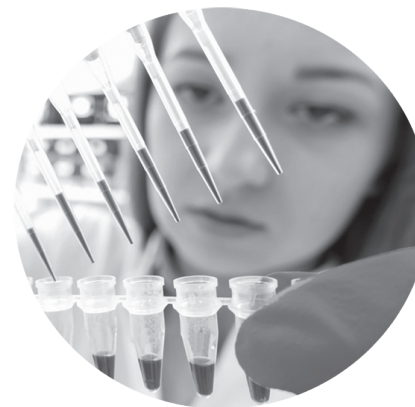
Required for emphasis: 10 units

BIOL 512 - Advanced Topics in Regenerative Medicine (1 unit)

BIOL 513 - Cell Culture Facility Management (3 units)

BIOL 602 - Stem Cell Technology Internship (6 units)

Electives: 6 units

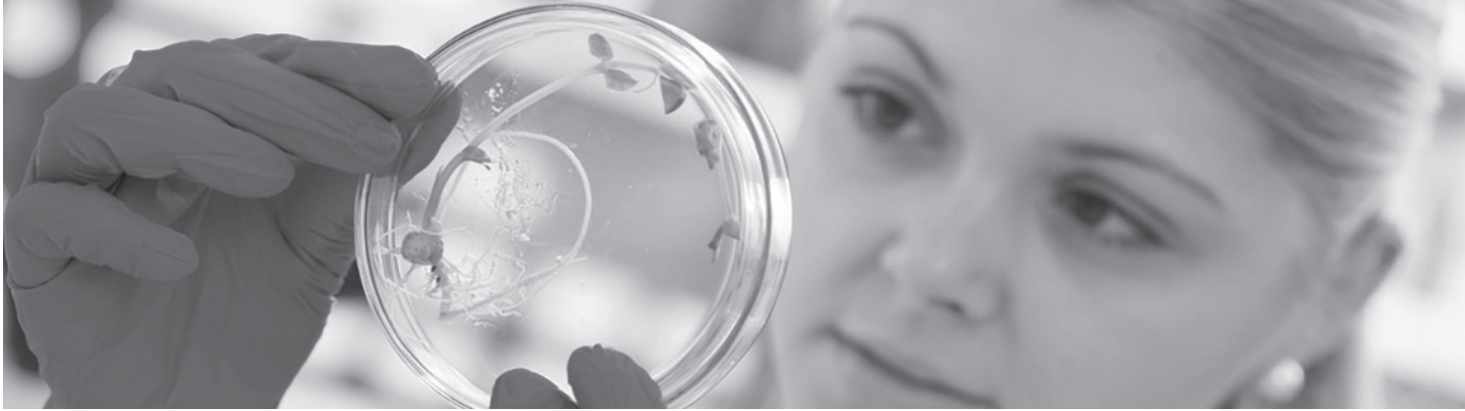


Cutting edge opportunities in stem cell sciences



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Two Types of Internships



BIOL 602: Students accepted into the Stem Cell Technology and Laboratory Management emphasis are required to conduct a year-long off-site internship. Open to students in the stem cell emphasis only.

BIOL 603: Semester-long off-site internships available to students enrolled in any of the two emphases and can be taken as an elective. Can be taken up to two times, but only once for credit.

On-campus research opportunities are available via an Independent Research/Directed study BIOL597 course, which is counted as an elective.



Admissions

Applications are accepted for the spring and fall semesters.

Application periods: please refer to our website for up-coming deadlines and start dates: ext.csuci.edu/

Applicants with conferred bachelor's degree in biology or related field, or applicants with any other degree who have completed the foundational courses in biology, with a minimum GPA of 2.75 may apply online at go.csuci.edu/apply.

Submit the following documentation:

- Statement of Purpose (summarizing career objective and reason for pursuing an MS in biotechnology)
- Resume or CV
- Two Letters of Recommendation (at least one must be a professional recommendation)
- One set of official transcripts from all colleges and universities attended
- GRE Score*

****GRE Waiver:** The GRE may be waived if one or more of the following conditions are satisfied:

- 1) cumulative GPA of 3.5 or higher in bachelor's degree in a life science field (for a bachelor's degree in a non-biological field, the waiver will be considered on a case-by-case basis)
- 2) previous master of science (MS) degree in a life science field from a regionally accredited institution (the MS degree should have been received in the past six years)
- 3) professional graduate degree; MD, DDS, Nurse Practitioner, Pharm D.
- 4) minimum of five years total work experience in life science and/or biotech related career

Contact a representative for the most current information.

International Applicants

Please visit the International Admissions page at go.csuci.edu/intl.

Fees

CSU Application Fee: \$70 (non-refundable)

Course Fee: \$825 per unit*

Total cost 33-35 units: \$27,225 - \$28,875

*In-State, Out-of-State, and International students. Fees do not include the cost of textbooks or living expenses and are subject to change at any time. Financial aid in the form of loans may be available for eligible students.

Contact

CSU Channel Islands Extended University
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One University Drive
Sage Hall 2109
Camarillo, CA 93012
Attend an information session:
go.csuci.edu/learnmore