Program Learning Objectives
1. Perform fundamental laboratory skills involved in regenerative medicine research & development.
2. Discuss and critically evaluate biomedical primary literature.
3. Effectively communicate technical topics to both peer and lay audiences.
4. Explain the process of biotechnology development & commercialization.
5. Describe how research & development efforts are motivated by and impact physician & patient experiences.
6. Design and execute independent research projects.

Required Courses

BIO 501 Molecular & Cellular Biology 4
BIO 509 Communicating Biology to General Audiences 1
BIO 534 Principles of Stem Cell Biology 2
BIO/ASCI/BMED 583 Research Experience for Regenerative Medicine Students 2
BIO/ASCI/BMED 593 Regenerative Medicine Internship 9
BMED 510 Principles of Tissue Engineering 4
BMED 515 Introduction to Biomedical Imaging 4
BMED 560 Cell Transplantation and Biotherapeutics 2
BMED 561 Cell Transplantation and Biotherapeutics Laboratory 2
STAT 513 Applied Experimental Design and Regression Models 4
or STAT 523 Design and Analysis of Experiments I
or STAT 524 Applied Regression Analysis

Seminars
Select from the following: 6
ASCI 581 Graduate Seminar in Animal Science
ASCI 583 Teaching Strategies for College Biology Laboratories
BIO 590 Seminar in Biology
BIO 591 Biology Colloquium
BMED 563 Biomedical Engineering Graduate Seminar

Approved Electives
Select from the following: 5
ASCI 406 Applied Animal Embryology and Assisted Reproduction
ASCI 407 Assisted Reproduction Technologies of Gametes and Embryos Laboratory
BIO 405 Developmental Biology
BIO 406 Advanced Anatomy and Physiology, Neuroscience

Total units 45

1 Students will complete their internship at one of our partner institutions. An updated list of our current partners can be found on our program website: regenmed.calpoly.edu (https://regenmed.calpoly.edu).
2 Take at least one offering of ASCI 581, BIO 590, and BMED 563; the remaining units up to 6 may be from any combination of seminar courses, chosen in consultation with a faculty advisor.
3 Strongly recommended if not already taken an equivalent course.