

Program Modification

Program modifications must be submitted by October 15, 2013, and finalized by the end of that fall semester for catalog production.
Enter data in **YELLOWED** areas.

Date (10/13/13): 2014 2015 Catalog Copy 8.26.13; rev 12.10.13

Program Area: **Biotechnology & Bioinformatics: Stem Cell Technology and Laboratory Management Emphasis, M.S.**

Semester /Year First affected: FALL 2014

Instructions: Please use this Program Modification form for changes to existing program requirements, units, outcomes, emphases or options, or for other programmatic concerns. For minor changes (faculty or address changes, additions of approved electives, minor editing for clarity, and other minor updates) use the Program Update form, available at the Curriculum website.

SUMMARY OF CHANGES

1. Replaced MGT 471 with BIOL 502 as core requirement. MGT 471 becomes an elective.
2. Removed inactivated course BIOL 511 from requirements (inactivation per CIRM regulations).
3. Added stipulation that students without developmental biology must take BIOL 517 as one of their electives.
4. Updated unit subtotals to reflect changes 1-3 above.
5. Replaced BIOL 504 with BINF 500 as GWAR course.

JUSTIFICATION

Currently the common MS Biotechnology course does not include a laboratory course. We believe that a molecular biology laboratory techniques course (BIOL 502) should be a required core element of a master's degree in biotechnology. BIOL 511 was inactivated and removed per regulations of the California Institute of Regenerative Medicine, which funds scholarships to many students in this emphasis.

CURRENTLY APPROVED PROGRAM

Biotechnology & Bioinformatics: Stem Cell Technology and Laboratory Management Emphasis, M.S.

PROPOSED PROGRAM

Biotechnology & Bioinformatics: Stem Cell Technology and Laboratory Management Emphasis, M.S.

(34-35 units)	(34-35 units)	
<p>Degree Requirements</p> <hr/> <p>Common Core Courses - 12 units</p> <hr/> <ul style="list-style-type: none"> • BINF 500 - DNA and Protein Sequence Analysis Units: 3 • BIOL 503 - Biotechnology Law and Regulation Units: 3 • BIOL 504 - Molecular Cell Biology Units: 3 • MGT 471 - Project Management Units: 3 <p>Stem Cell Technology and Laboratory Management Emphasis - 22-23 units</p> <hr/> <p>1. Required Courses - 19 units</p> <hr/> <p><i>BIOL 602 course is offered quarterly at 1.5 units, which is repeatable for a total of 6 units for a year long project.</i></p> <ul style="list-style-type: none"> • BIOL 502 - Techniques in Genomics/Proteomics Units: 3 • BIOL 510 - Tissue Culture Techniques and Stem Cell Technology Units: 3 • BIOL 511 - Advanced Stem Cell Technology Units: 3 • BIOL 512 - Advanced Topics in Regenerative Medicine Units: 1 • BIOL 513 - Cell Culture Facility Management Units: 3 • BIOL 602 - Stem Cell Technology Internship Units: 1.5-1.5 (1.5 units X 4) <p>2. Electives 3-4 units</p>	<p>Degree Requirements</p> <hr/> <p>Common Core Courses - 12 units</p> <hr/> <ul style="list-style-type: none"> • BINF 500 - DNA and Protein Sequence Analysis Units: 3 • BIOL 502 - Techniques in Genomics/Proteomics Units: 3 • BIOL 503 - Biotechnology Law and Regulation Units: 3 • BIOL 504 - Molecular Cell Biology Units: 3 <p>Stem Cell Technology and Laboratory Management Emphasis - 22-23 units</p> <hr/> <p>1. Required Courses - 13 units</p> <hr/> <p><i>BIOL 602 course is offered quarterly at 1.5 units, which is repeatable for a total of 6 units for a year long project.</i></p> <ul style="list-style-type: none"> • BIOL 510 - Tissue Culture Techniques and Stem Cell Technology Units: 3 • • BIOL 512 - Advanced Topics in Regenerative Medicine Units: 1 • BIOL 513 - Cell Culture Facility Management Units: 3 • BIOL 602 - Stem Cell Technology Internship Units: 1.5-1.5 (1.5 units X 4) <p>2. Electives 9-10 units</p>	

<p>A minimum of one course chosen from the elective courses for the Biotechnology Emphasis and/or from the required courses for the other emphases of the program.</p> <p>Graduate Writing Assessment Requirement</p> <p>Writing proficiency prior to the awarding of the degree is demonstrated by successful completion of BIOL 504 with a grade of B or higher.</p>	<p>A minimum of three courses chosen from the elective courses for the Biotechnology Emphasis and/or from the required courses for the other emphases of the program. Students who have not taken a course in developmental biology or embryology MUST take BIOL 517 (Mechanisms of Development) as an elective.</p> <p>Graduate Writing Assessment Requirement</p> <p>Writing proficiency prior to the awarding of the degree is demonstrated by successful completion of BINF 500 with a grade of B or higher.</p>	
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Amy Denton

Date

APPROVAL SHEET

Program: BIOL

If your course has a General Education Component or involves Center affiliation, the Center will also sign off during the approval process.

Multiple Chair fields are available for cross-listed courses.

The CI program review process includes a report from the respective department/program on its progress toward accessibility requirement compliance. By signing below, I acknowledge the importance of incorporating accessibility in course design.

Program Chair		
	Signature	Date

Curriculum Chair		
	Signature	Date

AVP		
	Signature	Date