



**University of Hawai'i at Mānoa**  
**Colleges of Arts & Sciences Program Sheet 2013-2014**  
**Bachelor of Science (BS) in Molecular Cell Biology**  
**Admissions: Open Process: Declaration**  
**Min. Total Credits: 120 (107 in core & major + 13 in electives)**

UHM General Education Core Requirements
<b>Foundations</b>
<input type="checkbox"/> FW
<input type="checkbox"/> FS
<input type="checkbox"/> FG (A / B / C)
<input type="checkbox"/> FG (A / B / C)
<b>Diversification</b>
<input type="checkbox"/> DA / DH / DL
<input type="checkbox"/> DA / DH / DL
<input type="checkbox"/> DB
<input type="checkbox"/> DP
<input type="checkbox"/> DY
<input type="checkbox"/> DS
<input type="checkbox"/> DS
<i>* See degree, college and major requirements for courses that can also fulfill these.</i>
UHM Graduation Requirements
<b>Focus</b>
<input type="checkbox"/> H
<input type="checkbox"/> E (300+)
<input type="checkbox"/> O (300+)
<input type="checkbox"/> W
<input type="checkbox"/> W
<input type="checkbox"/> W
<input type="checkbox"/> W (300+)
<input type="checkbox"/> W (300+)
<b>Hawaiian / Second Language</b>
<input type="checkbox"/> 101
<input type="checkbox"/> 102
<input type="checkbox"/> 201
<input type="checkbox"/> 202
<b>Credit Minimums</b>
• 120 total applicable
• 30 in residence at UHM
• 60 non-introductory
<b>Grade Point Average</b>
• 2.0 cumulative or higher ( <i>Note: Other GPAs may be required.</i> )
• Good academic standing

Degree Requirements
<b>Bachelor of Arts Requirement (Can also fulfill FS)</b>
<input type="checkbox"/> MATH 100, 112, 140, 161, 203, 215, 241, 251A; PHIL 110, 111; BUS 250; ICS 141, 241; NREM 203; or SOCS 150
<b>Bachelor of Science Requirements</b>
<input type="checkbox"/> MATH 215* <sup>FS</sup> or 241* <sup>FS</sup> or 251A* <sup>FS</sup>
<input type="checkbox"/> MATH 216 or 242 or 252A
<input type="checkbox"/> DB course
<input type="checkbox"/> CHEM 161* <sup>DP</sup> / <input type="checkbox"/> 161L* <sup>DY</sup>
<input type="checkbox"/> CHEM 162* <sup>DP</sup> / <input type="checkbox"/> 162L* <sup>DY</sup>
<input type="checkbox"/> PHYS 151* <sup>DP</sup> or 170* <sup>DP</sup> / <input type="checkbox"/> 151L* <sup>DY</sup> or 170L* <sup>DY</sup>
<input type="checkbox"/> PHYS 152* <sup>DP</sup> or 272* <sup>DP</sup> / <input type="checkbox"/> 152L* <sup>DY</sup> or 272L* <sup>DY</sup>
<b>College Requirements</b>
<b>A &amp; S Options – Complete at least one option</b>
See degree requirements above.
<b>Credit Maximums</b>
• 8 KRS activity
• 9 Directed Reading / Research
• 12 Practicum / Internship

*This program sheet was prepared to provide information and does not constitute a contract. See back for major requirements.  
 Meet regularly with your major advisor.*

## Major Requirements for BS in Molecular Cell Biology

Admission: Open

Application: NA

Min. major credits: BS = 44 (74 with related requirements)

Min. C grade (not C-) in all prerequisite courses

### Requirements

#### Molecular Cell Biology Core Requirements (34 credits)

BIOL 171<sup>\*DB</sup> /  171L<sup>\*DY</sup>

BIOL 172<sup>\*DB</sup> /  172L<sup>\*DY</sup>

BIOL 275<sup>\*DB</sup> /  275L<sup>\*DY</sup>

BIOL 375<sup>\*DB</sup> /  375L<sup>\*DY</sup>

BIOL 407<sup>DB</sup>

BIOL 408<sup>DB</sup>

Biochemistry (MBBE 402<sup>DB</sup> or BIOC 441<sup>DB</sup>)

MCB 314<sup>DS</sup>

MCB 461<sup>DB</sup>

MCB 472

#### Molecular Cell Biology Related Requirements (10 credits from Group 1 and 2, minimum of 1 credit from 2)

##### Group 1 Courses

**10 credits** from: ICS 475, MATH 304, 305, MICR 351, 431, 470, 475, 490, MBBE 405, PHYL 301, ZOOLOGY 420, 442, MICR/BOT/ZOOLOGY 499

\_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

##### Group 2 Courses

MICR 351L, 431L, 461L, 475L, 490L, PHYL 301L, ZOOLOGY 420L

\_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

##### Related Major Courses

MATH 215

MATH 216

CHEM 161/ 161L

CHEM 162/ 162L

CHEM 272/ 272L

CHEM 273

PHYS 151/ 151L or 170/ 170L

PHYS 152/ 152L or 272/ 272L

### Notes

Colleges of Arts and Sciences Student Academic Services: QLCSS 113; (808) 956-8755

Microbiology Department: Snyder 207; (808) 956-8553; [uhmicro@hawaii.edu](mailto:uhmicro@hawaii.edu); [www.hawaii.edu/microbiology](http://www.hawaii.edu/microbiology)

Microbiology Undergraduate Chair: Stuart Donachie, PhD; Snyder 21; (808) 956-6452; [donachie@hawaii.edu](mailto:donachie@hawaii.edu)

[http://www.advising.hawaii.edu/artsci/pages/resources/lib\\_art\\_degrees/majorskills/majorskills\\_micr.asp#MICR\\_SCHED](http://www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_micr.asp#MICR_SCHED)