# Bachelor of Science (BS) in Molecular Cell Biology

**Admissions:** Open  
**Process:** Declaration  
**Min. Total Credits:** 120 (109 in core & major + 11 in electives)

## UHM General Education Core Requirements

<table>
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<th>Foundations</th>
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| FW ENG 100, 100A, 190, ESL 100, or AMST 111  
| FS MATH 215, 241, or 251A  
| FG (A / B / C)  
| FG (A / B / C) |

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<th>Diversification</th>
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| DA / DH / DL  
| DA / DH / DL  
| DB BIOL 171, 172  
| DP CHEM 161  
| DY BIOL 171L, 172L, CHEM 161L  
| DS MCB 314  
| DS |

* See degree, college and major requirements for courses that can also fulfill these.

## UHM Graduation Requirements

### Focus
- H
- E (300+)
- O (300+)
- W
- W
- W
- W (300+)
- W (300+)

### Hawaiian / Second Language
- 101
- 102
- 201
- 202

### Credit Minimums
- 120 total applicable
- 30 in residence at UHM
- 45 upper division (300+ level) credits

### Grade Point Average
- 2.0 cumulative or higher *(Note: Other GPAs may be required.)*
- Good academic standing

## Degree Requirements

### Bachelor of Science Requirements
- Calculus I
- Calculus II
- Chemistry I with lab
- Chemistry II with lab
- Physics I with lab
- Physics II with lab

Refer to major requirements for the specific courses that satisfy these requirements.

### College Requirements

### Credit Maximums
- 8 KRS activity
- 9 Directed Reading / Research
- 12 Practicum / Internship

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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 = 46 (74 with related requirements)  
**Min. C grade (not C-)** in all prerequisite courses

#### Requirements

##### Molecular Cell Biology Core Requirements (36 credits)

- BIOL 171* / 171L*  
- BIOL 172* / 172L*  
- BIOL 275 / 275L  
- BIOL 375 / 375L  
- BIOL 407  
- Biochemistry (MBBE 402 or BIOC 441)  
- MCB 314*  
- MCB 461  
- 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, ZOOL 420, 442, MICR/BOT/ZOOL 499

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**Group 2 Courses**  
MICR 351L, 431L, 461L, 475L, 490L, PHYL 301L, ZOOL 420L

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**Related Major Courses**

- MATH 215, 241, or 251A*  
- MATH 216, 242, or 252A  
- CHEM 161* / 161L*  
- CHEM 162/162L  
- CHEM 272/272L  
- CHEM 273  
- PHYS 151/151L or 170/170L  
- PHYS 152/152L or 272/272L

#### Notes

Department of Biology Advising: Edmondson 216; (808) 956-8303; biodavis@hawaii.edu  
To schedule an advising appointment, visit manoa.hawaii.edu/biology/advising.  
Microbiology Department: Snyder 207; (808) 956-8553; www.hawaii.edu/microbiology/lab/  
Microbiology Undergraduate Advisor: Cheri Kau; (808) 956-6174; cherikau@hawaii.edu

*SD 5/15*