# 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

### Foundations
- **FW** ENG 100, 100A, 190, ESL 100, or AMST 111
- **FS** MATH 215, 241, or 251A
- **FG** (A / B / C)
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### Diversification
- **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+)

### 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 (77-79 with related requirements)  
**Min. C grade (not C-) in all prerequisite courses**

### Requirements

#### Molecular Cell Biology Core Requirements (36 credits)
- BIOL 171*DB / BIOL 171L*DY*  
- BIOL 172*DB / BIOL 172L*DY  
- BIOL 275 / BIOL 275L (Fall and Summer)  
- BIOL 375 / BIOL 375L (Spring only)  
- BIOL 407 (Fall only)  
- BIOL 408 / BIOL 408L (Spring only)  
- Biochemistry (MBBE 402 or BIOC 441)  
- MCB 314*DS (Spring only)  
- MCB 461 (Fall only)  
- 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, PHYL 301, ZOOL 420, 442, MICR/BOT/ZOOL 499
  - [ ] ________  [ ] ________  [ ] ________  [ ] ________

**Group 2 Courses**
- MICR 351L, 461L, 475L, 490L, PHYL 301L, ZOOL 420L
  - [ ] ________  [ ] ________  [ ] ________  [ ] ________

#### Related Major Courses (31-33 credits)
- MATH 215*FS, 241*FS, or 251A*FS  
- MATH 216, 242, or 252A  
- CHEM 161*DP / CHEM 161L*DP  
- CHEM 162/162L  
- CHEM 272/272L  
- CHEM 273  
- PHYS 151/151L or PHYS 170/170L  
- PHYS 152/152L or PHYS 272/272L

### Notes

Department of Biology Advising: Edmondson 216; (808) 956-5911; 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/  
Microbiology Undergraduate Advisor: Jain Pak; (808) 956-8303; jainpak@hawaii.edu

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