## UHM General Education Core Requirements

### Foundations
- FW
- FS
- FG (A / B / C)
- FG (A / B / C)

### Diversification
- DA / DH / DL
- DA / DH / DL
- DB
- DP
- DY
- DS
- 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
- Any four-course combination of language or 2 social sciences courses and 2 biological or physical science courses

### 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

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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 Biosciences and Biotechnology

**Specialization:** General Biotechnology  
**Admission:** Open  
**Application:** NA  
**Min. major credits:** 73 (81 with related requirements)  
**Min. exit GPA:** 2.0 in the major

### Requirements

#### Molecular Biosciences and Biotechnology Related Requirements (7 credits)
- MATH 215* or 241*  
- NREM 220*

#### Molecular Biosciences and Biotechnology Core Courses (50 credits)
- BIOL 171* / 171L*  
- BIOL 172* / 172L*  
- BIOL 275* / 275L*  
- CHEM 161* / 161L*  
- CHEM 162* / 162L*  
- CHEM 272* / 272L*  
- MBBE 304*  
- MBBE 401  
- MBBE 402 / 402L  
- ANSC 446, BIOL 375, or PEPS 371
- PHYS 100* / 100L* or 151* / 151L* and 152* / 152L*  
- MBBE/PEPS/TPSS 499

#### General Biotechnology Required Courses (6 credits)
- BIOL 407  
- BIOL 408

#### General Biotechnology Elective Courses (18 credits)
- 18 credits of the following:
  - CHEM 273/273L  
  - MICR 351/351L  
  - MICR 461  
  - MICR 475  
  - MICR 485/485L  
  - OCN 310  
  - TPSS 440  
  - TPSS 453  
  - MBBE/PEPS/TPSS 499

### Notes

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MBBE Program: Gilmore 211; (808) 956-6997

MBBE Undergraduate Advisor: Harry Ako, PhD; AgSci 218; (808) 956-2012; hako@hawaii.edu