



**University of Hawai'i at Mānoa**  
**College of Tropical Agriculture and Human Resources Program Sheet 2014-2015**  
**Bachelor of Science (BS) in Molecular Biosciences and Biotechnology**

**Admissions: Open Process: Declaration**  
**Min. Total Credits: 120 (108 in core & major + 12 in electives)**

<b>UHM General Education Core Requirements</b>
<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>
<b>UHM Graduation Requirements</b>
<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>
Hawaiian/Second Language Requirement is not required for students admitted to the Molecular Biosciences and Biotechnology program.
<b>Credit Minimums</b>
• 120 total applicable
• 30 in residence at UHM
• 45 upper division (300+ level) credits
<b>Grade Point Average</b>
• 2.0 cumulative or higher ( <i>Note: Other GPAs may be required</i> )
• Good academic standing

<b>College Requirements</b>
<b>CTAHR Required Set of Interrelated Courses</b>
<input type="checkbox"/> NREM 310
<input type="checkbox"/> Internship or capstone course (MBBE/PEPS/TPSS 499)
<b>Credit Minimums</b>
• 120 total applicable

*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

Admission: Open

Application: NA

Min. major credits: 73 (82 with related requirements)

Min. exit GPA: 2.0 in the major

### Requirements

#### Molecular Biosciences and Biotechnology Related Requirements (7 credits)

MATH 215\*<sup>FS</sup> or 241\*<sup>FS</sup>

NREM 220\*<sup>DS</sup>

#### Molecular Biosciences and Biotechnology Core Courses (57 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 407

CHEM 161\*<sup>DP</sup> /  161L\*<sup>DY</sup>

CHEM 162\*<sup>DP</sup> /  162L\*<sup>DY</sup>

CHEM 272\*<sup>DP</sup> /  272L\*<sup>DY</sup>

MBBE 304\*<sup>E</sup>

MBBE 401

MBBE 402

MBBE 408

MBBE 483

ANSC 446, BIOL 375, or PEPS 371

PHYS 100\*<sup>DP</sup> /  100L\*<sup>DY</sup> or  151\*<sup>DP</sup> /  151L\*<sup>DY</sup> and  152\*<sup>DP</sup> /  152L\*<sup>DY</sup>

MBBE/PEPS/TPSS 499

#### General Biotechnology Elective Courses (18 credits)

18 credits of the following:

BE 150

BE 431

CHEM 273/273L

MICR 461

PEPS 405

TPSS 453

BE 373

BE 440

MBBE 402L

MICR 475

PEPS 421

ZOOL 320/320L

BE 410

BOT 102/102L

MBBE 412

MICR 485/485L

PEPS 422

BE 420

BOT 470/470L

MICR 351/351L

PEPS 363

TPSS 440

### Notes

CTAHR Office of Academic and Student Affairs:

Gilmore 210; (808) 956-8183/(808) 956-6733; acadaff@ctahr.hawaii.edu;  
www.ctahr.hawaii.edu

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

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