### UHM General Education Core Requirements

<table>
<thead>
<tr>
<th>Foundations</th>
</tr>
</thead>
<tbody>
<tr>
<td>FW  ENG 100, 100A, 190, ESL 100, or AMST 111</td>
</tr>
<tr>
<td>FS  MATH 215, 241, or 251A</td>
</tr>
<tr>
<td>FG (A / B / C)</td>
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<table>
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<tr>
<th>Diversification</th>
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<tbody>
<tr>
<td>DA / DH / DL</td>
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<tr>
<td>DB  BIOL 171, 172</td>
</tr>
<tr>
<td>DP  CHEM 161</td>
</tr>
<tr>
<td>DY  CHEM 161L, BIOL 171L, BIOL 172L</td>
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<td>DS</td>
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<td>DS</td>
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</table>

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

### UHM Graduation Requirements

#### Focus
- 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

<table>
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<tr>
<th>Credit Maximums</th>
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<tbody>
<tr>
<td>8 KRS activity</td>
</tr>
<tr>
<td>9 Directed Reading / Research</td>
</tr>
<tr>
<td>12 Practicum / Internship</td>
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</tbody>
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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 Microbiology

Admission: Open
Application: NA
Min. major credits: 29 (76-78 with related requirements)
Min. C grade (not C-) in all courses

Requirements

Microbiology Related Requirements (47-49 credits)

- BIOL 171* / 171L* (Fall and Summer)
- BIOL 172* / 172L* (Fall and Summer)
- BIOL 275 / 275L
- CHEM 161* / 161L*
- CHEM 162 / 162L
- CHEM 272 / 272L
- CHEM 273
- PHYS 151* / 151L* or PHYS 170* / 170L*
- PHYS 152* / 152L* or PHYS 272* / 272L*
- MBBE 402 or BIOC 441
- MATH 215* or 241* or 251A*

Microbiology Core Courses (5 credits)

- MICR 351 / 351L (Spring only)

Additional Courses (24 credits; see department for approved choices; see catalog for prerequisites)

Additional Microbiology Courses (9 credits)

- MICR 431 (Spring only)
- MICR 461 (Fall only)
- MICR 475

3 credits from Group 1: MICR 361, 401, 463, 470, 485, or 490
- ________

6 credits from Group 2: MICR 401L, 461L, 463L, 475L, 485L, 490L
- ________ ________ ________

6 credits of approved Group 3 major electives:
- ________ ________ ________ ________

Notes

Department of Biology Advising: Edmondson 216; (808) 956-5911; bioadvis@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