

## University of Hawai'i at Mānoa

## College of Tropical Agriculture and Human Resources Program Sheet 2017-2018 Bachelor of Science (BS) in Molecular Biosciences and Biotechnology

**Admissions: Open Process: Declaration** 

Min. Total Credits: 120 (106 in core & major + 14 in electives)

| <b>UHM General Education Core Requirements</b>                |  |  |  |  |  |
|---|--|--|--|--|--|
|   |  |  |  |  |  |
| Foundations   |  |  |  |  |  |
| ☐ FW ENG 100, 100A, 190, ESL 100, or AMST 111                 |  |  |  |  |  |
| ☐ FS MATH 215 or 241  |  |  |  |  |  |
| □ FG (A / B / C)  |  |  |  |  |  |
| □ FG (A/B/C)  |  |  |  |  |  |
|   |  |  |  |  |  |
| Diversification   |  |  |  |  |  |
| □ DA/DH/DL  |  |  |  |  |  |
| □ DA/DH/DL  |  |  |  |  |  |
| □ DB BIOL 171   |  |  |  |  |  |
| □ DP CHEM 161   |  |  |  |  |  |
| □ DY CHEM 161L  |  |  |  |  |  |
| □ DS NREM 220 or ECON 130                                     |  |  |  |  |  |
| □ DS  |  |  |  |  |  |
|   |  |  |  |  |  |
| * See degree, college and major requirements for courses that |  |  |  |  |  |
| can also fulfill these.                                       |  |  |  |  |  |
| UHM Graduation Requirements                                   |  |  |  |  |  |
|   |  |  |  |  |  |
| Focus   |  |  |  |  |  |
| □ Н   |  |  |  |  |  |
| □ E (300+)  |  |  |  |  |  |
| □ O (300+)  |  |  |  |  |  |
|   |  |  |  |  |  |
| □ W   |  |  |  |  |  |
| □ W   |  |  |  |  |  |
| □ W   |  |  |  |  |  |
| □ W (300+)  |  |  |  |  |  |
| □ W (300+)  |  |  |  |  |  |
|   |  |  |  |  |  |
| Hawaiian / Second Language                                    |  |  |  |  |  |
| Hawaiian/Second Language Requirement is not required          |  |  |  |  |  |
| for students admitted to the Molecular Biosciences and        |  |  |  |  |  |
| Biotechnology program.  |  |  |  |  |  |
| Credit Minimums   |  |  |  |  |  |
| 120 total applicable  |  |  |  |  |  |
| 30 in residence at UHM  |  |  |  |  |  |
| 45 upper division (300+ level) credits                        |  |  |  |  |  |
| +5 upper division (500+ level) cledits                        |  |  |  |  |  |
|   |  |  |  |  |  |
| Grade Point Average   |  |  |  |  |  |
|   |  |  |  |  |  |

| College Requirements                                 |  |  |  |  |
|--|--|--|--|--|
|  |  |  |  |  |
| CTAHR Required Set of Interrelated Courses           |  |  |  |  |
| □ NREM 310   |  |  |  |  |
| ☐ Internship or capstone course (MBBE/PEPS/TPSS 499) |  |  |  |  |
|  |  |  |  |  |
| Credit Minimums                                      |  |  |  |  |
| • 120 total applicable                               |  |  |  |  |
|  |  |  |  |  |

| Major Requirements for BS  | in Molecular Bioscienc  | es and Biotechnology  |                           |  |  |
|--|-------------------------|---|---------------------------|--|--|
| Admission: Open  |                         |   |                           |  |  |
| Application: NA  |                         |   |                           |  |  |
| Min. major credits: 73 (80 with related requirements)                                      |                         |   |                           |  |  |
| Min. exit GPA: 2.0 in the major  |                         |   |                           |  |  |
| Willia Cart Gi 71. 2.0 in the major  | <u>51</u>               |   |                           |  |  |
| Requirements   |                         |   |                           |  |  |
| Molecular Biosciences and Biotechnology Related Requirements (7 credits)                   |                         |   |                           |  |  |
| ☐ MATH 215*FS or 2   | 241* <sup>FS</sup>      |   |                           |  |  |
| ☐ NREM 220* <sup>DS</sup> or E   | CON 130 *DS             |   |                           |  |  |
|  |                         |   |                           |  |  |
| Molecular Biosciences and Biotechnology Core Courses (47 credits)                          |                         |   |                           |  |  |
| □ BIOL 171* <sup>DB</sup> / □ 171L* <sup>DY</sup>  |                         |   |                           |  |  |
| $\square$ BIOL 172* $^{\mathrm{DB}}$ / $\square$ 172L* $^{\mathrm{DY}}$                    |                         |   |                           |  |  |
| □ BIOL 275* <sup>DB</sup> / □ 275L* <sup>DY</sup>  |                         |   |                           |  |  |
| □ CHEM 161* <sup>DP</sup> / □ 161L* <sup>DY</sup>  |                         |   |                           |  |  |
| $\square$ CHEM $162^{*DP}$ / $\square$ $162L^{*DY}$  |                         |   |                           |  |  |
| ☐ CHEM 272* <sup>DP</sup> / ☐ 272L* <sup>DY</sup>  |                         |   |                           |  |  |
| ☐ MBBE 304*  |                         |   |                           |  |  |
| □ MBBE 401   |                         |   |                           |  |  |
| ☐ MBBE 402   |                         |   |                           |  |  |
| ☐ MBBE 483   |                         |   |                           |  |  |
|  |                         | $\square$ 151L* $^{\mathrm{DY}}$ and $\square$ 152* $^{\mathrm{D}}$ | P / □ 152L* <sup>DY</sup> |  |  |
| ☐ MBBE/PEPS/TPSS   | S 499 (6 credits)       |   |                           |  |  |
|  |                         |   |                           |  |  |
| General Biotechnology Elect  | ive Courses (24 credits | )   |                           |  |  |
| ☐ ANSC 446   | ☐ ANSC/OCN 450          | □ BE 150  | □ BE 260                  |  |  |
| □ BE 373   | □ BE 410                | ☐ BE 411/FSHN 411   |                           |  |  |
| □ BE 431   | □ BE 440                | ☐ BIOL 375/375L   | □ BIOL 407                |  |  |
| □ BIOL/MCB 472   | □ BOT 101/101L          | □ BOT 420   | □ CHEM 273/273L           |  |  |
| ☐ MBBE 402L  | ☐ MBBE 408              | ☐ MBBE 412  | ☐ MICR 351/351L           |  |  |
| ☐ MICR 461   | ☐ MICR 470              | ☐ MICR 475/475L   | ☐ MICR 485/485L           |  |  |
| ☐ MICR 490   | ☐ PHRM 201              | ☐ PHRM 203  | □ PEPS 363                |  |  |
| □ PEPS 371   | ☐ PEPS 405              | □ PEPS 421  | □ PEPS 422                |  |  |
| ☐ TPSS 440   | ☐ TPSS 453              | ☐ TPSS 470/470L   | □ ZOOL 320/320L           |  |  |
|  |                         | NT /  |                           |  |  |
|  |                         | Notes   |                           |  |  |
| CTAHR Academic Advising Off  |                         |   |                           |  |  |
| Gilmore 1 <sup>st</sup> floor; <u>ctahradv@haw</u><br>Appointments are required to see     |                         | hrady youganhook ma/ to so  | shadula an appointment    |  |  |
| CTAHR Office of Academic and   |                         | iniadv.youcanoook.mc/ to sc   | nedule all appointment.   |  |  |
| Gilmore 210, (808) 956-8183/(808) 956-6733; www.ctahr.hawaii.edu/ugadvising                |                         |   |                           |  |  |
| Offiniore 210, (000) 250 0105, (000) 250 0125, <u>************************************</u> |                         |   |                           |  |  |
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