

# Major: Biochemistry & Molecular Biology/Biotechnology

\*Feb 2025

Name: \_\_\_\_\_ PID \_\_\_\_\_

Credits required for graduation: 120

**Integrative Studies and Writing- University Requirement: (20 credits)**

WRA 101/195H-4 \_\_\_\_\_ ISS 2XX \_\_\_\_\_ -4 IAH 201-210 -4 \_\_\_\_\_  
 or LB 133-4 \_\_\_\_\_ ISS 3XX \_\_\_\_\_ -4 IAH 211 or greater-4 \_\_\_\_\_  
 Note: ISS/IAH courses must be in at least 2 different Diversity Designations (N, I, D)

**Biochemistry**

**Chemistry**

**Honors**

**Lyman Briggs**

BMB 101-1 ___ F lect. BMB 370-3 ___ F S lab BMB 461-3 ___ F S lect. 1 BMB 462-3 ___ F S lect. 2 BMB 470-4 ___ F lab (OR other Molecular Biology Lab - see below)* BMB 471-4 ___ S lab BMB 495-2 ___ S seminar OR BMB 499 (2-8) ___ (Thesis) OR LB 492-4 ___ F S seminar (Required for Lyman Briggs Students)  <b>Electives (optional)</b> BMB 490 - ___ research BMB 491 - ___ research	CEM 151-4 ___ F inorg. 1 or CEM 141-4 ___ F S US or CEM 181H-4 ___ F or LB 171-4 ___ F S CEM 152-4 ___ S inorg. 2 or CEM 142-4 ___ F S US or CEM 182H-4 ___ S or LB 172-3 ___ F S CEM 161-1 ___ F S US lab 1 or CEM 185H-2 ___ F or LB 171L-1 ___ F S CEM 162-1 ___ F S US lab 2 or CEM 185H-2 ___ F or LB 172L-1 ___ F S CEM 351-4 ___ F organic 1 or CEM 251-4 ___ F S US organic 1 or LB 271-3 ___ F S organic 1 CEM 352-4 ___ S organic 2 or CEM 252-4 ___ F S US organic 2 CEM 355-2 ___ S US organic lab 1 CEM 356-2 ___ F organic lab 2 CEM 383-3 ___ F US phys. chem. 1 or CEM 484-3 ___ S molec. thermo. (MTH 235 is a prereq.)
---	--

**Physics**

Physics I: PHY 183-4 F S US or PHY 221-4 \_\_\_ F S or LB 273-4 \_\_\_ F (Lyman Briggs Only) or PHY 193H-4 \_\_\_ F (Honors)  
 Physics II: PHY 184-4 F S US or PHY 222-4 \_\_\_ F S or LB 274-4 \_\_\_ S (Lyman Briggs Only) or PHY 294H-4 \_\_\_ S (Honors)

**Non-Calc Physics: Requires calculus bridge courses:**

Physics I: PHY 231-3 \_\_\_ F S US + PHY 233B-2 \_\_\_ F S US (bridge)  
 Physics II: PHY 232-3 \_\_\_ F S US + PHY 234B-2 \_\_\_ F S US (bridge)

*NOTE: Lyman Briggs students who are not taking LB 273/274, must complete PHY labs - see options below*

**Computer Science/Math**

**Lyman Briggs**

**Honors**

CMSE 201-4 \_\_\_ F S  
 MTH 132-3 \_\_\_ F S US (calc 1) or LB 118-4 \_\_\_ F S or MTH 152H-3 \_\_\_ F S  
 MTH 133-4 \_\_\_ F S US (calc 2) or LB 119-4 \_\_\_ F S or MTH 153H-3 \_\_\_ S

**Biology**

**Lyman Briggs**

**Honors**

BS 162-3 \_\_\_ F S US or LB 144-4 \_\_\_ F S or BS 182H-3 \_\_\_ F  
 BS 161-3 \_\_\_ F S US or \*LB 145-5 \_\_\_ F S or BS 181H-3 \_\_\_ S  
 BS 171-2 \_\_\_ F S US or \*LB 145-5 (\*LB 145 replaces BS 161&171) or BS 191H-2 \_\_\_ S lab

**Premeds and all LB Students also need**

BS 172-2 \_\_\_ F S US or LB 144-4 \_\_\_ F S or BS 192H-2 \_\_\_ F

**General Genetics**

**Advanced Selectives (300-400 level) (9 credits)**

(Visit: <https://bmb.natsci.msu.edu/undergraduate/academics/> for approved courses list)

IBIO/PLB 341-4 \_\_\_ F S US or CSS/CROP 350-3 \_\_\_ S

**\*Molecular Biology Lab (3-4 credits)**

BMB 470 -4 \_\_\_ F or CSS/CROP 451-3 \_\_\_ S or MMG/MGI 408-3 \_\_\_ F

**Premeds and Lyman Briggs students may also need:**

**Premeds may also need:**

**(consult with pre-professional advisor)**

**(consult with pre-professional advisor)**

PHY 251-1 \_\_\_ F S US lab 1 or PHY 191-1 \_\_\_ F lab 1  
 PHY 252-1 \_\_\_ F S US lab 2 or PHY 192-1 \_\_\_ S lab 2

PSY \_\_\_ - \_\_\_ F S US  
 SOC \_\_\_ - \_\_\_ F S US

(\*Please visit our website for most current requirements checklists: <https://bmb.natsci.msu.edu/undergraduate/academics/>)