

**Major: Biochemistry & Molecular Biology/Biotechnology**

\*May 19

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

**Credits required for graduation: 120**

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

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

<u>Biochemistry</u>	<u>Chemistry</u>	<u>Honors</u>	<u>Lyman Briggs</u>
BMB 101-1 ___ F lect. BMB 461-3 ___ F S lect. 1 BMB 462-3 ___ F S lect. 2 BMB 472-3 ( <i>or other Molecular Biology Lab - see below</i> )** BMB 471-3 ___ S lab ( <i>BMB 471 is not a prereq for BMB 472</i> )	CEM 151-4 ___ F inorg. 1 <b>or</b> CEM 141-4 ___ F S US CEM 152-3 ___ S inorg. 2 <b>or</b> CEM 142-3 ___ F S US CEM 161-1 ___ F S US lab 1 CEM 162-1 ___ F S US lab 2 CEM 262-3 ___ F S US quantitative analysis CEM 351-3 ___ F organic 1 <b>or</b> CEM 251-3 ___ F S US organic 1 CEM 352-3 ___ S organic 2 <b>or</b> CEM 252-3 ___ 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 <b>or</b> CEM 484-3 ___ S molec. thermo. ( <b>MTH 235 is a prereq.</b> )	CEM 181H-4 ___ F CEM 182H-4 ___ S CEM 185H-2 ___ F CEM 185H-2 ___ F	LB 171-4 ___ F S LB 172-3 ___ F S LB 171L-1 ___ F S LB 172L-1 ___ F S
<b>AND</b>			
BMB 495-2 ___ S seminar <b>OR</b> BMB 499 (2-8) ___ (Thesis) <b>OR</b> LB 492-4 ___ F S seminar (For Lyman Briggs Students Only)			
<b>Electives (optional)</b> BMB 490- ___ research			

<u>Physics</u>	<u>Lyman Briggs</u>	<u>Non-Calc Physics**</u> : Requires calculus bridge courses	<u>Honors</u>
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PHY 241-4 \_\_\_ F **or** PHY 183-4 \_\_\_ F S US **or** LB 273-4 \_\_\_ F **or** \*\*PHY 231-3 \_\_\_ F S US + PHY 233B-2 \_\_\_ F S US (bridge) **or** PHY 193H-4 \_\_\_ F  
 PHY 242-4 \_\_\_ S **or** PHY 184-4 \_\_\_ F S US **or** LB 274-4 \_\_\_ S **or** \*\*PHY 232-3 \_\_\_ F S US + PHY 234B-2 \_\_\_ F S US (bridge) **or** PHY 294H-4 \_\_\_ S  
 NOTE: Lyman Briggs students starting at MSU in Fall 2019 or after, who are not taking LB 273/274, must complete PHY labs - see options below

<u>Computer Science/Math</u>	<u>Lyman Briggs</u>	<u>Honors</u>
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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

<u>Biology</u>	<u>Lyman Briggs</u>	<u>Honors</u>
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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

<u>General Genetics</u>	<u>Advanced Biotechnology (300-400 level) (9 credits)</u> (see back page for approved course options)
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IBIO/PLB 341-4 \_\_\_ F S US **or** CSS 350-3 \_\_\_ S

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

BMB 472-3 \_\_\_ F **or** CSS 451-3 \_\_\_ S **or** MMG 408-3 \_\_\_ F

<u>Premeds and Lyman Briggs students may also need:</u> (consult with Pre-professional advisor)	<u>Premeds may also need:</u> (consult with Pre-professional advisor)
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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/>)