

**Bachelor of Science - Biology with Concentration in Molecular and Cellular Biosciences Major  
(Four Year Plan)**

**YEAR 1**

Semester 1		Semester 2	
Course Number	Credit Hours	Course Number	Credit Hours
<b>ENG 1301 (Composition I)#</b> P: One of the following: (1) TSI ESSAY score of 4 and WRITING score of 340, (2) TSI ESSAY score of 5 and ABE WRITING diagnostic level 4, (3) TSI WRITING complete, OR (4) TSI WRITING exempt	3	<b>ENG 1302 (Composition II)</b> P: A grade of C or better in ENG 1301 or placement by examination	3
<b>*BIOL 1301/1101 (General Biology I w/ Lab) &amp;</b> P: Credit or enroll in ENG 1301 (or 010 core complete), MATH 1301	4	<b>*BIOL 1302/1102 (General Biology II w/ Lab) &amp;</b> P: BIOL 1301 and BIOL 1101	4
<b>*MATH 2411 (Calculus I for Natural Sciences)#&amp;</b> P: C or better in MATH 1404 or MATH 1505 or placement by exam taken at UHD (can be substituted with MATH 2401)	4	<b>*CHEM 1307/1107 (General Chemistry I w/ Lab)</b> P: Credit or enrollment in MATH 1301, ENG 1301 (or 010 core complete), and one year of HS chemistry OR CHEM 1305/1105	4
<b>UHD 1303 (Freshman Seminar – Life and Physical Sciences)</b> Transfer students see advisor for options	3	<b>MATH 2412 (Calculus II for NS)</b> P: C or better in MATH 2411 or MATH 2401 (can be substituted with CS 1408 or CS 1410)	4
<b>Total Semester Hours</b>	<b>14</b>	<b>Total Semester Hours</b>	<b>15</b>

**YEAR 2**

Semester 3		Semester 4	
Course Number	Credit Hours	Course Number	Credit Hours
<b>*CHEM 1308/1108 (General Chemistry II w/ Lab)</b> P: Grade of C or better in CHEM 1307/1107	4	<b>*MBIO 2305/2105 (General Microbiology w/ Lab)</b> P: BIOL 1302/1102 and CHEM 1308/1108	4
<b>PHYS 1307/1107 (General Physics I w/ Lab)</b> P: Credit or enrollment in MATH 1302 or the equivalent (can be substituted with PHYS 2401/2101)	4	<b>PHYS 1308/1108 (General Physics II w/ Lab)</b> P: PHYS 1307/1107 (can be substituted with PHYS 2402/2102)	4
<b>POLS 2306 (Texas Government)</b> P: Enrollment in or completion of ENG 1301 or 010 core complete	3	<b>*BIOL 2303/2103 (General Genetics w/ Lab)</b> P: BIOL 1302/1102 and CHEM 1308/1108	4
<b>Approved Language, Philosophy, and Culture course (p. 60)</b> P: Refer to catalog	3	<b>Approved Creative Arts course (p. 60)</b> P: Refer to catalog	3
<b>Total Semester Hours</b>	<b>14</b>	<b>Total Semester Hours</b>	<b>15</b>

**YEAR 3**

Semester 5		Semester 6	
Course Number	Credit Hours	Course Number	Credit Hours
<b>Molecular and Cellular Biosciences Option</b> See catalog for options	3	<b>BIOL 3306 (Biological Evolution)</b> P: BIOL 2303	3
<b>*CHEM 2301/2101 (Organic Chemistry I w/ Lab)</b> P: C or better in CHEM 1308/1108	4	<b>Molecular and Cellular Biosciences Option</b> See catalog for options	4
<b>STAT 3311 (Statistical Analysis for Natural Science)</b> P: A grade of C or better in MATH 1404 or MATH 1505	3	<b>CHEM 4340/4140 (Biochemistry I w/ Lab) %</b> P: BIOL 1302/1102 and CHEM 2301/2101	4
<b>Approved American History course (p. 60)</b> P: Enrollment in or completion of ENG 1301 or 010 core complete	3	<b>Approved American History course (p. 60)</b> P: Enrollment in or completion of ENG 1301 or 010 core complete	3
<b>POLS 2305 (Federal Government)</b> P: Enrollment in or completion of ENG 1301 or 010 core complete	3	<b>Approved Social and Behavioral Sciences course (p. 60)</b> P: Refer to catalog	3
<b>Total Semester Hours</b>	<b>16</b>	<b>Total Semester Hours</b>	<b>17</b>

**YEAR 4**

Semester 7		Semester 8	
Course Number	Credit Hours	Course Number	Credit Hours
<b>BIOL 4320 (Cellular Biology)</b> P: 3 hours of UL BIOL and senior standing	3	<b>BIOL 4330 (Molecular Biology)</b> P: BIOL 2303/2103 and senior standing Recommended: CHEM2301/2101	3
<b>Molecular and Cellular Biosciences Option</b> See catalog for options	3	<b>BIOL 4311 (Biology Seminar) %</b> P: Senior standing and majoring in an area of life science (can be substituted with MBIO 4311 or SUST 4301)	3
<b>Approved UL Biology Course</b> BIOL 3300, 4201, 4230, 4232, 4260, 4399* (*enrollment in Honors Program required)	2-3	<b>Approved UL Elective Course</b>	3
<b>Technical Writing Course %</b> TCOM 3302, 3325, 3326, 3329, or 4306 P: Refer to catalog	3	<b>Approved UL Elective Course</b>	3
<b>Approved Oral Communication course (p. 60)</b> P: Refer to catalog	3	<b>Approved UL Elective Course</b>	3
<b>Total Semester Hours</b>	<b>14-15</b>	<b>Total Semester Hours</b>	<b>15</b>

**Total Credit Hours Required      120**

\* Critical course required to stay on track within major and take subsequent courses

# Students are expected to place into ENG 1301 and MATH 2401 via CLEP or Bypass exams – placement tests determine which english or math course students should start with and additional courses may be necessary

& Satisfies both common core and major requirement/prerequisite

% Satisfies both major requirement/prerequisite and integrated requirement course