

### PROGRAM MAP – AS- Biology

<b>Program Outcomes (*Core courses)</b>	Explain the scientific method and its applications, and use the scientific method in a laboratory setting	Explain the principle of evolution as a fundamental process of all biology.	Describe how structure and function are related at all levels of life	Demonstrate proficiency in basic lab skills and analysis.
*BIOL 230	SLO 7	SLO 1	SLO 2, 3, 6	SLO 7, 8
*BIOL 210	SLO C	SLO D	SLO D	SLO C
*BIOL 220	SLO 7 and 8	SLO 4 and 5	SLO 1, 2, 3, 4, 6	SLO 8
*CHEM 210	SLO D		SLO C	
*CHEM 220				SLO C

### PROGRAM MAP – AS-T - Biology

<b>Program Outcomes (*Core courses)</b>	Explain the scientific method and its applications, and use the scientific method in a laboratory setting	Explain the principle of evolution as a fundamental process of all biology.	Describe how structure and function are related at all levels of life	Demonstrate proficiency in basic lab skills and analysis.
*BIOL 230	SLO 7	SLO 1	SLO 2, 3, 6	SLO 7, 8
*BIOL 210	SLO C	SLO D	SLO D	SLO C
*BIOL 220	SLO 7 and 8	SLO 4 and 5	SLO 1, 2, 3, 4, 6	SLO 8
CHEM 210	SLO D		SLO C	
CHEM 220				SLO C
MATH 251				SLO 5
PHYS 210	SLO F			
PHYS 220	SLO 1, 3, 4, 5, 6		SLO 4, 5	SLO 1, 2, 3, 6
PHYS 250	SLO 4			SLO 4
PHYS 260			SLO 6	

**PROGRAM MAP – AS – Biology: Pre-Nursing**

<b>Program Outcomes (*Core courses)</b>	Explain the scientific method and its applications, and use the scientific method in a laboratory setting	Explain the principle of evolution as a fundamental process of all biology.	Describe how structure and function are related at all levels of life	Demonstrate proficiency in basic lab skills and analysis.	Demonstrate knowledge of common and current clinical issues
*BIOL 240	SLO D		SLO B	SLO C	SLO A, SLO E
*BIOL 250	SLO 2, 3, 4	SLO 1, 2, 3	SLO 1, 2, 3, 4	SLO 1, 2, 3, 4	SLO 1, 4
*BIOL 260					
*CHEM 210	SLO D		SLO C		
*CHEM 220				SLO C	
*CHEM 410	SLO C			SLO C	
*CHEM 420	SLO C		SLO B, SLO C		

**PROGRAM MAP – AS-T: Nutrition and Dietetics**

<b>Program Outcomes (*Core courses)</b>	Explain principles of nutrition and their effect on health	Demonstrate a fundamental understanding of health behaviors on nutritional and health status	Assess the impact of age, culture and gender on diet and nutrition	Describe food preparation, preservation, serving, and storage techniques that prevent food poisoning	Design meal plans based on current nutritional guidelines	Interpret current nutrition research
*BIOL 310	SLO 1, 3, 6	SLO 4, 5, 6	SLO 4, 5	SLO 4, 3	SLO 2, 3	SLO 1, 5,
*PSYC 100	SLO 1	SLO 2	SLO 2			SLO 3
*CHEM 210						SLO B
*BIOL 240				SLO A, SLO E		SLO C, SLO D
CHEM 220				SLO A		
BIOL 260						
MATH 200			SLO 13, 16			
PSYC 121		SLO 1	SLO 4		SLO 2, 5	SLO 2, 3
BIOL 250	SLO 2, 3, 4	SLO 2, 3, 4	SLO 4			
ECON 100			SLO 2			
SOCI 100						SLO 1

**PROGRAM MAP – Certificate of Specialization: Biotechnology**

<b>Program Outcomes (*Core courses)</b>	Demonstrate proficiency in basic lab skills and analysis commonly used in molecular biology and biotechnology	Explain the basis for and applications of techniques in biotechnology.
*BIOL 123	SLO 1, 2	SLO 2
*CHEM 210	SLO B, SLO D	
*CHEM 220	SLO A	
BIOL 110	SLO 5	SLO 3
BIOL 210		SLO D
BIOL 220	SLO 7 and 8	SLO 2 and 7
BIOL 230	SLO 7, 8	SLO 4, 7
BIOL 240	SLO C	SLO E

**ILO map – BIOL courses to ILOs (leaves boxes blank if no direct alignment)**

	<b>Independent learning</b>	<b>Effective communication</b>	<b>Quantitative reasoning</b>	<b>Critical thinking</b>	<b>Social awareness &amp; diversity</b>	<b>Ethical responsibility &amp; effective citizenship</b>
BIOL 100	SLO C	SLO A	SLO C	SLO D	SLO E	SLO E
BIOL 102			SLO 2	SLO 1 and 3		SLO 3 and 4
BIOL 110	SLO 1-5	SLO 1-4	SLO 5	SLO 1-5	SLO 2	
BIOL 123				SLO 2		
BIOL 126	SLO 3	SLO 2, 3				SLO 3
BIOL 127	SLO 3	SLO 2, 3				SLO 3
BIOL 128	SLO 3	SLO 2, 3				SLO 3
BIOL 130			SLO 2, 5	SLO 2, 3, 4	SLO 4	SLO 5
BIOL 132			SLO A	SLO A		SLO C
BIOL 145			SLO E	SLO D	SLO C	SLO C
BIOL 184				SLO B		SLO B, D
BIOL 195	SLO C	SLO C	SLO C	SLO C		
BIOL 210			SLO C	SLO D		SLO B
BIOL 220	SLO 8	SLO 7	SLO 7	SLO 4 and 7	SLO 5	SLO 6
BIOL 230		SLO 8	SLO 7	SLO 1-8		
BIOL 240			SLO C	SLO D		
BIOL 250	SLO 1, 2, 3, 4	SLO 1, 3, 4	SLO 3, 4	SLO 1, 2, 3, 4	SLO 1, 2, 3, 4	SLO 1, 2, 3, 4
BIOL 260						
BIOL 310	SLO 2, 3	SLO 4, 5, 6	SLO 1, 2, 3, 4, 5	SLO 1, 2, 3	SLO 4, 5	SLO 1, 4
BIOL 690						

**General Comments:**

- Paul Hankamp is updating the CO and SLOs for Biology 102 to meet the state C-ID descriptor for this course.