

## Associate in Science Degree in Natural Science with Concentrations in Biological Science or Physical Science Program Requirements & Map

### Requirements for Applied Science (AS) Degree - Natural Sciences: 60 credits

#### General Education: 24 credits

English 100(3) and 106(3), 209(3), or 210(3),  
or Speech 151(3) or 251(3)  
Math 205(4)

Humanities elective (3)  
Natural Sciences (8) Chemistry 161/161L(4) plus 4 credits  
Social Sciences elective (3)

#### Additional Program Requirements: 7 credits

Chemistry 162(3), 162L(1)

Information & Computer Sciences 101(3)

#### Biological Science Concentration: 16-17 credits

Biology 171(3), 171L(1), 172(3), 172L(1)  
Physics 151(4) and 152(4) or 170(5) and 272(4)

#### Physical Science Concentration: 13 credits

Math 206(4)  
Physics 170(5), 272(4)

### Concentration electives for both Biological and Physical Science Concentrations: 12-16 credits

#### Full-time students in the Biological Sciences Concentration would take courses in this sequence

First Semester (Fall)	Credits	Second Semester (Spring)	Credits
CHEM 161	3	CHEM 162	3
CHEM 161L	1	CHEM 162L	1
ENG 100	3	ICS 101	3
MATH 205	4	Concentration electives	7
Natural Science elective	4	Total	14
Total	15		

Third Semester (Fall)	Credits	Fourth Semester (Spring)	Credits
BIOL 171	3	BIOL 172	3
BIOL 171L	1	BIOL 172L	1
*PHYS 151	4	*PHYS 152	4
English/Communications elective	3	Humanities elective	3
Social Science elective	3	Concentration electives	6
Total	14	Total	17

#### Full-time students in the Physical Sciences Concentration would take courses in this sequence

First Semester (Fall)	Credits	Second Semester (Spring)	Credits
CHEM 161	3	CHEM 162	3
CHEM 161L	1	CHEM 162L	1
ENG 100	3	MATH 206	4
MATH 205	4	Natural Science elective	4
Natural Science elective	4	ICS 101	3
Total	15	Total	15

Third Semester (Fall)	Credits	Fourth Semester (Spring)	Credits
PHYS 170	5	PHYS 272	4
**MATH 231 ( <i>Concentration elective</i> )	3	**MATH 232 ( <i>Concentration elective</i> )	3
Social Science elective	3	Concentration electives	6
English/Communications elective	3	Humanities elective	3
Total	14	Total	16

\* Or PHYS 170 and 272

\*\* Recommended

## Appendix #1

AS Degree in Natural Sciences with a concentration in Biological or Physical Science (60 credits)							
<b>General Education Requirements</b>							
Area	Course	Title	CR	S1	S2	S3	S4
English	ENG 100	English Composition I	3	*			
English/Speech elective			3			*	
Quant Reasoning	MATH 205	Calculus I	4	*			
Humanities elective			3				*
Social Sciences elective			3			*	
Natural Sciences elective	CHEM 161/161L	General Chemistry I & Lab	4	*			
Natural Sciences elective			4	*			
Total			24				
<b>Additional Program Requirements for both Biological and Physical Science (7 credits)</b>							
	CHEM 162/162L	General Chemistry I & Lab	4		*		
	ICS 101	Digital Tools for the Information World	3		*		
Total			7				
<b>Biological Science Concentration Requirements (16 credits)</b>							
	BIOL 171/171L	Introductory Biology I & Lab	4			*	
	BIOL 172/172L	Introductory Biology II & Lab	4				*
	PHYS 151	College Physics I	4			*	
	PHYS 152	College Physics II	4				*
Total			16				
Concentration electives			13		*		*
Total							
<b>Physical Science Concentration Requirements (13 credits)</b>							
	MATH 206	Calculus II	4		*		
	PHYS 170	General Physics I	5			*	
	PHYS 272	General Physics II	4				*
Total			13				
Concentration electives			10		*		*
	MATH 231*	Calculus III	3			*	
	MATH 232*	Calculus IV	3				*
	* Recommended						