CHEM-1090	General Chemistry I (and lab)	4
ENGL-1010	English Composition I	3
MATH-1150	College Algebra	4
PRVD-1010	Achieving College Success	3
	Total Credits	**18**
2nd Semester		**Credits**
BIOS-1380	General Zoology (and lab)	4
CHEM-1100	General Chemistry II	4
ENGL-1020	English Composition II	3
MATH-1210	Trigonometry	3
	Oral Communication GE elective	3
	Total Credits	**17**
3rd Semester		**Credits**
CHEM-2510	Organic Chemistry I (and lab)	4
MATH-1600	Analytic Geometry and Calculus I	5
	Lab Science GE elective	4
	Social Sciences GE elective	3
	Total Credits	**16**
4th Semester		**Credits**
CHEM-2520	Organic Chemistry II (and lab)	4
	Humanities GE elective	3
	Social Sciences GE elective	3
	Electives	5
	Total Credits	**15**
	Total AS Credits	**66**

(Pre) Physical Therapy

AS.5108A (63 Credits)
Associate of Science
Scottsbluff

This emphasis area is designed to prepare students for entry into a school of physical therapy. The course of study is designed so that courses taken are applicable to other related programs.

Objectives

- Provide an opportunity for students to become acquainted with the basic principles of physics, chemistry, and biology.
- Provide an opportunity for students to learn the structure and function of the human body.
- Instill in students a greater appreciation for the interactions of physical, chemical, and biological laws as they apply to the human body.

Notes

- Students who plan to transfer to a four-year college/university should consult their faculty advisor and transfer advisor early in their WNCC career to determine a curriculum best suited to their transfer goals. The student is advised to carefully consider the course requirements of the physical therapy school to which he or she is seeking admission.
- In addition to the general education requirements for the AS degree, 23 credits of core courses and 19 credits of electives are required for the degree in pre-biomedical research.
- Depending on the choice of electives, it is possible that the total credits earned for the AS degree will exceed 60 credit credits.
- Students should understand that the courses included in the lists of core requirements and recommended electives will be required by receiving institutions at some point in their journey to the bachelor's or professional degree.

Core Requirements (23 credits)

- A minimum of 15-16 credits of combined science and math credits are required for the AS degree. This must include a minimum of three (3) credits of math and four (4) credits of science from BIOS, CHEM or PHYS options.

Class		Credits
BIOS-2250	Human Anatomy & Physiology I	4
BIOS-2260	Human Anatomy & Physiology II	4
CHEM-1090	General Chemistry I (and lab)	4
CHEM-1100	General Chemistry II (and lab)	4
MATH-1150	College Algebra	4
MATH-1210	Trigonometry	3

Recommended electives or courses required for transfer (19 credits):

Class		Credits
BIOS-1010	General Biology (and lab)	4
BIOS-1380	General Zoology (and lab)	4
BIOS-2120	Genetics (and lab)	4
BIOS-2460	Microbiology (and lab)	4
CHEM-2510	Organic Chemistry I (and lab)	4
CHEM-2520	Organic Chemistry II (and lab)	4

Recommended Plan of Study

1st Semester		Credits
BIOS-1010	General Biology (and lab)	4
CHEM-1090	General Chemistry I (and lab)	4

ENGL-1010	English Composition I	3
MATH-1150	College Algebra	4
PRDV-1010	Achieving College Success	3
	Total Credits	**18**

2nd Semester		**Credits**
BIOS-1380	General Zoology (and lab)	4
CHEM-1100	General Chemistry II (and lab)	4
ENGL-1020	English Composition II	3
MATH-1210	Trigonometry	3
	Humanities GE Elective	3
	Total Credits	**17**

3rd Semester		**Credits**
BIOS-2250	Human Anatomy & Physiology I (and lab)	4
CHEM-2510	Organic Chemistry I (with lab)	4
PSYC-1810	Introduction to Psychology	3
	Oral Communications GE elective	3
	Total Credits	**14**

4th Semester		**Credits**
BIOS-2260	Human Physiology & Anatomy II (and lab)	4
CHEM-2520	Organic Chemistry II (with lab)	4
	Social Sciences GE elective	3
	Electives	3
	Total Credits	**14**
	Total AS Credits	**63**

Physics

AS.4008 (62-64 Credits)
Associate of Science
Scottsbluff

This field of study provides students with comprehensive knowledge of the principles and skills related to physical science. The field of study is designed to meet the needs of students entering related technical or professional fields, as well as those seeking a general understanding of the physical world providing understanding of physical principles and interrelationships of all branches of science and mathematics.

Objectives

- Show how all phenomena is the logical result of the laws of nature.
- Stimulate interest in physics and fields related to physics.
- Develop skills in the use of the scientific method and the use of tools for measuring and collecting data.
- Provide the student with the background needed to increase the chances for success in the technical or professional fields.

Notes

- Students who plan to transfer to a four-year college or university should consult their faculty and transfer advisors early in their WNCC career to determine a curriculum best suited to their transfer goals.
- In addition to the general education requirements for the AS degree, 28 credits of core courses and 14 credits of electives are required for the degree in physics
- Depending on the choice of electives, it is possible that the total credits earned for the AS degree will exceed 60 credit credits.
- Students should understand that the courses included in the lists of core requirements and recommended electives will be required by receiving institutions at some point in their journey to the bachelor's degree.

Core Requirements (28 credits)

- A minimum of 15-16 credits of combined science and math credits are required for the AS degree. This must include a minimum of three (3) credits of math and four (4) credits of science from BIOS, CHEM or PHYS options.

Class		**Credits**
ENGR-1020	Programming and Problem Solving	3
MATH-1600	Analytic Geometry and Calculus I	5
MATH-2150	Calculus II	5
MATH-2200	Calculus III	5
PHYS-1300	Physics I (with lab and recitation)	5
	or	
PHYS-2400	Physics I with Calculus (with lab and recitation)	5
PHYS-1350	Physics II (with lab and recitation)	5
	or	
PHYS-2450	Physics II with Calculus (with lab and recitation)	5

Recommended electives or courses required for transfer (14 credits)

Class		**Credits**
ENGR-2020	Statics	3
PHYS-1070	Astronomy	4
	Total Credits	**7**