AVIA-1250	Power Plant Phase V	6
AVIA-1260	Power Plant Phase VI	6
	Total Credits	**18**
	Total Certificate Credits	**72-78**

*English and math course selections are dependent on writing and math proficiency based on assessment. Students should consult with their academic advisor about specific general education courses required.

Biology/Ecology

AS.2601A (61 Credits)
Associate of Science
Scottsbluff

This emphasis area provides the student with comprehensive coverage of the natural world. This course of study is designed to meet the needs of students wishing to gain technical knowledge for entry into other related areas within the field of biology as well as those seeking a general acquaintance with the field.

Objectives

- Provide a basic understanding of the life processes while affording the opportunity to become better acquainted with the natural world.
- Stimulate interest in the biological sciences as a possible career goal.
- Provide the necessary knowledge, understanding, and techniques to better manage better and conserve the environment.
- Instill a sense of appreciation for the often-unseen beauty in the living world.
- Teach the fundamental techniques necessary to employ the scientific method in researching the biological sciences.
- Make the student aware of the importance of a career dealing with the care and management of our renewable resources.
- Provide an educational experience that allows the student to complete the transition to a four-year college or university with relative ease.

Notes

- Students who plan to transfer to a four-year college or university should consult their faculty advisor and transfer advisor 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, 23 credits of core courses and 19 credits of electives are required for the degree in biology/ecology.
- 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 (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-1010	General Biology (and lab)	4
BIOS-1380	General Zoology (and lab)	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 selected from below):

Class		Credits
BIOS-1300	General Botany (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-1300	General Botany (and lab)	4
	or	
BIOS-1380	General Zoology (and lab)	
CHEM-1100	General Chemistry II (and lab)	4
ENGL-1020	English Composition II	3

	Oral Communication GE elective	3
	Total Credits	**14**
3rd Semester		**Credits**
BIOS-2120	Genetics (and lab)	4
CHEM-2510	Organic Chemistry I (and lab)	4
MATH-1210	Trigonometry	3
	Social Sciences GE elective	3
	Total Credits	**14**
4th Semester		**Credits**
BIOS-1300	General Botany (and lab)	4
	or	
BIOS-1380	General Zoology (and lab)	
BIOS-2460	Microbiology (and lab)	4
CHEM-2520	Organic Chemistry II (and lab)	4
	Humanities GE elective	3
	Total Credits	**15**
	Total AS Credits	**61**

(Pre) Biomedical Research

AS.2601 (65 Credits)
Associate of Science
Scottsbluff

The pre-biomedical research emphasis area is designed to provide the student with a course of study that allows him/her the opportunity to be admitted to and successfully complete a degree program in biomedical research. This degree of study provides one student per year the opportunity to be accepted into the INBRE (Nebraska Biomedical Research Program) and attend one of six universities in Nebraska that participate in the program.

Objective

- To provide the basic science and general education courses needed to attain an AS degree from WNCC and transfer to a biomedical research program at a four-year college or university.

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, 23 credits of core courses and 19 credits of electives are required for the degree in pre-biomedical research.
- Depending on the student's 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 (and lab)	4
BIOS-2260	Human Anatomy & Physiology II (and lab)	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 selected from below):

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
PRVD-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**