

**Cardiorespiratory Sciences**

ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

REQUIRED CREDITS: 81

**LIMITED ENTRY**  
DEGREE CODE: CARD-AAS

This is a limited-entry program. Some of these courses are program prerequisites and MUST be completed before a student is considered eligible for entry into the Program. Students MUST attend a Health Programs orientation and meet with a Health Programs advisor for additional advisement.

**DESCRIPTION**

Cardiorespiratory Sciences (CRS) is a multi-disciplined, multi-credentialed program preparing students in care, management, and life-support of individuals having deficiencies and abnormalities associated with the cardiopulmonary system. A successful graduate of this program will obtain credentials from a national laboratory credentialing agency, the American Heart Association, Cardiovascular Credentialing International, and the National Board for Respiratory Care.

The Cardiorespiratory Sciences Program provides a quality academic experience preparing Respiratory Care Practitioners and Cardiac Technicians. The graduate will possess the attitudes, skills, and knowledge required to think critically, communicate effectively, and provide self-direction while administering care.

The program emphasizes developing competencies that integrate protocols, Clinical Practice Guidelines, and critical pathways into an efficient cardiorespiratory care plan.

A limited entry program, students must attend a health programs orientation and meet with a health programs advisor for additional counseling prior to acceptance in the program. The Cardiorespiratory Sciences Program is accredited by The Commission on Accreditation for Respiratory Care (CoARC). The Commission on Accreditation for Respiratory Care, 1248 Harwood Road, Bedford, TX 76021-4244, (817) 283-2835 [www.coarc.com](http://www.coarc.com).

**STUDENT LEARNING OUTCOMES**

- Acquire and evaluate clinical data.
- Assess the cardiopulmonary status of patients.
- Practice abilities required for performance of prescribed diagnostic studies such as: obtaining blood samples, blood gas analysis, pulmonary function testing, and polysomnography.
- Evaluate data to assess the appropriateness of prescribed respiratory care.
- Construct patient, family, and community education programs.
- Practice prescribed respiratory care treatments, managing life support activities, evaluating and monitoring patient responses to such therapy and modifying the prescribed therapy to achieve the desired therapeutic objectives.

**PLEASE NOTE** - The courses listed below may require a prerequisite or corequisite. Read course descriptions before registering for classes. All MATH and ENG courses numbered 01-99 must be completed before reaching 30 total college-level credits. No course under 100-level counts toward degree completion.

**GENERAL EDUCATION REQUIREMENTS (31 CREDITS)**

**MATHEMATICS (3 credits)**

Recommended: MATH 124 College Algebra

**ENGLISH COMPOSITION (3-5 credits)**

Recommended: ENG 101 Composition I

**COMMUNICATIONS (3 credits)**

Recommended: COM 101 Oral Communication

**HUMAN RELATIONS (3 credits)**

Recommended: PHIL 135 Introduction to Ethics

**NATURAL SCIENCE (12 credits)**

Required: BIOL 223 and 224 and 251

**FINE ARTS/HUMANITIES/SOCIAL SCIENCES (3 credits)**

Recommended: PSY 101 General Psychology

**U.S. AND NEVADA CONSTITUTIONS (4-6 credits)**

Recommended: PSC 101 Introduction to American Politics

**SPECIAL PROGRAM REQUIREMENTS (50 CREDITS)**

**CORE REQUIREMENTS (46 credits)**

|          |  |   |
|----------|--|---|
| CRS 111  | Introductory Concepts of Cardiorespiratory Sciences  | 3 |
| CRS 112  | Introductory Concepts of Cardiorespiratory Equipment | 1 |
| CRS 115  | Clinical Practicum I                                 | 4 |
| CRS 121  | Advanced Concepts of Cardiorespiratory Sciences      | 3 |
| CRS 122  | Advanced Concepts of Cardiorespiratory Equipment     | 1 |
| CRS 123  | Applied Cardiorespiratory Assessment                 | 3 |
| CRS 124  | Cardiorespiratory Pharmacology                       | 3 |
| CRS 125  | Clinical Practicum II                                | 4 |
| CRS 135  | Clinical Practicum III                               | 3 |
| CRS 211  | Neonatal and Pediatric Cardiorespiratory Care        | 3 |
| CRS 212  | Neonatal and Pediatric Cardiorespiratory Equipment   | 1 |
| CRS 213  | Cardiorespiratory Diagnostics                        | 3 |
| CRS 214  | Cardiorespiratory Diagnostics Equipment              | 1 |
| CRS 215  | Clinical Practicum IV                                | 4 |
| CRS 221  | Continuity of Cardiorespiratory Care                 | 3 |
| CRS 222  | Seminar for Success                                  | 1 |
| CRS 225  | Clinical Practicum V                                 | 4 |
| HIT 117B | Medical Terminology I                                | 1 |

**Choose one group (4 credits)**

*Group 1:*

|          |                           |   |
|----------|---------------------------|---|
| EGG 131  | Technical Physics I       | 3 |
| EGG 131L | Technical Physics I - Lab | 1 |

*Group 2:*

|          |                               |   |
|----------|-------------------------------|---|
| PHYS 110 | Conceptual Physics (or above) | 4 |
|----------|-------------------------------|---|

See Degree Plan on next page.

- NOTE**
- Course numbers with the “B” suffix may be non-transferable for a NSHE baccalaureate degree.
  - Course numbers with the “H” suffix are designated Honors-level courses and can be used to fulfill equivalent general education requirements. For more information visit [www.csn.edu/honors](http://www.csn.edu/honors).
  - In no case, may one course be used to meet more than one requirement except for the Values and Diversity general education requirement (only AA, AS, and AB degrees) which may be used to fulfill the corresponding general education or emphasis requirement.
  - Students may elect to graduate using the degree requirements in effect at the time of matriculation, or when they declared or changed major or the current catalog. If a program is official after a student has matriculated, the student may choose the degree requirements of the new program. In no case may a student use a catalog which is more than six years old at the time of graduation.



## Cardiorespiratory Sciences

ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

REQUIRED CREDITS: 81

LIMITED ENTRY

DEGREE CODE: CARD-AAS

**FULL-TIME STUDENT DEGREE PLAN***Add more semesters to modify this plan to fit part-time student needs.***PLEASE NOTE – All CRS courses can only be taken once accepted to the CRS program and then must be taken in the order indicated.**

| <b>FIRST SEMESTER</b>                              | <b>Credits</b> |
|--|----------------|
| BIOL 189 Fundamentals of Life Science <sup>1</sup> | (4)            |
| ENG 101 Composition I                              | 3              |
| COM 101 Oral Communication                         | 3              |
| HIT 117B Medical Terminology I                     | 1              |
| <b>TOTAL CREDITS</b> .....                         | <b>7(11)</b>   |

| <b>SECOND SEMESTER</b>                     | <b>Credits</b> |
|--|----------------|
| MATH 124 College Algebra                   | 3              |
| BIOL 223 Human Anatomy and Physiology I    | 4              |
| BIOL 251 General Microbiology              | 4              |
| EGG 131 and EGG 131L; or PHYS 110 or above | 4              |
| <b>TOTAL CREDITS</b> .....                 | <b>15</b>      |

| <b>THIRD SEMESTER</b>                     | <b>Credits</b> |
|---|----------------|
| PHIL 135 Introduction to Ethics           | 3              |
| BIOL 224 Human Anatomy and Physiology I   | 4              |
| PSY 101 General Psychology                | 3              |
| PSC 101 Introduction to American Politics | 4              |
| <b>TOTAL CREDITS</b> .....                | <b>14</b>      |

| <b>FOURTH SEMESTER</b>                                       | <b>Credits</b> |
|--|----------------|
| CRS 111 Introductory Concepts of Cardiorespiratory Sciences  | 3              |
| CRS 112 Introductory Concepts of Cardiorespiratory Equipment | 1              |
| CRS 115 Clinical Practicum I                                 | 4              |
| <b>TOTAL CREDITS</b> .....                                   | <b>8</b>       |

| <b>FIFTH SEMESTER</b>                                    | <b>Credits</b> |
|--|----------------|
| CRS 121 Advanced Concepts of Cardiorespiratory Sciences  | 3              |
| CRS 122 Advanced Concepts of Cardiorespiratory Equipment | 1              |
| CRS 123 Applied Cardiorespiratory Assessment             | 3              |
| CRS 124 Cardiorespiratory Pharmacology                   | 3              |
| CRS 125 Clinical Practicum II                            | 4              |
| <b>TOTAL CREDITS</b> .....                               | <b>14</b>      |

| <b>SIXTH SEMESTER</b>          | <b>Credits</b> |
|--------------------------------|----------------|
| CRS 135 Clinical Practicum III | 3              |
| <b>TOTAL CREDITS</b> .....     | <b>3</b>       |

| <b>SEVENTH SEMESTER</b>                                  | <b>Credits</b> |
|--|----------------|
| CRS 211 Neonatal & Pediatric Cardiorespiratory Care      | 3              |
| CRS 212 Neonatal & Pediatric Cardiorespiratory Equipment | 1              |
| CRS 213 Cardiorespiratory Diagnostics                    | 3              |
| CRS 214 Cardiorespiratory Diagnostics Equipment          | 1              |
| CRS 215 Clinical Practicum IV                            | 4              |
| <b>TOTAL CREDITS</b> .....                               | <b>12</b>      |

| <b>EIGHTH SEMESTER</b>                       | <b>Credits</b> |
|--|----------------|
| CRS 221 Continuity of Cardiorespiratory Care | 3              |
| CRS 222 Seminar for Success                  | 1              |
| CRS 225 Clinical Practicum V                 | 4              |
| <b>TOTAL CREDITS</b> .....                   | <b>8</b>       |

**DEGREE PLAN TOTAL CREDITS**..... **81(85)**<sup>1</sup>BIOL 189, although not included for the AAS degree, it is a prerequisite of BIOL 223 and BIOL 225 and must be completed prior to enrolling in those classes.**NOTE:**

- Due to the high rigor of the CRS program, it is highly recommended that students complete as many general education requirements before applying to the program as possible.

