**Cardiopulmonary Sciences, BAS**

The Bachelor of Applied Science (BAS) in Cardiopulmonary Sciences is a program designed for cardiovascular technologists and respiratory care professionals who want to advance their education.

Applicants should hold one of the following credentials:

* Registered Respiratory Therapist (RRT) from the National Board for Respiratory Care
* Registered Cardiovascular Invasive Specialist (RCIS) or other registry level credentials from Cardiovascular Credentialing International
* Registered Diagnostic Cardiac Sonographer (RDCS) from the American Registry of Diagnostic Medical Sonographers.

On this foundation of skill, the proposed program will result in additional growth for professionals within the specialized area of Cardiopulmonary Sciences.

The program will provide cardiopulmonary professionals with a well-rounded general education in the arts and sciences as well as an advanced understanding in the Cardiopulmonary Sciences. The Cardiopulmonary Sciences BAS provides career advancement for entry-level health profession practitioners. Students will develop management and leadership skills and gain a broader-based knowledge of healthcare delivery skills. The program offers a diverse population of students with innovative educational experiences and opportunities to meet the healthcare needs of the community they serve. The program provides a career and educational pathway for cardiovascular technologists and respiratory care professionals who have earned an Associate of Science degree in a related area or who hold comparable certification and licensure to treat patients.

**Program Highlights:**

The BAS in Cardiopulmonary Sciences program includes courses in professional issues, advanced pharmacology, diagnosis and intervention, patient management, research, legal and ethical aspects of healthcare, pathophysiology, leadership, and community health. Courses are offered in a blend of online and traditional formats to accommodate students’ various schedules and learning preferences. Students may select from an array of electives to complement their learning. Courses are offered for full-time and part-time students. The program also provides an excellent basis for continued formal education at the graduate level in the medical, public health, and education disciplines.

**Career Opportunities:**

Cardiopulmonary professionals will be able to further promote the expansion of services in their communities, such as diagnosis and treatment of cardiopulmonary and sleep disorders, health promotion and disease prevention, patient education, pulmonary rehabilitation, disease-specific case management, and life support outside of the intensive care unit. Changes in health care policy, regulation, and reimbursements have required professionals to adopt these expanded roles, work more independently in settings across the continuum of care, and collaborate as partners on the healthcare delivery team.

**Admission Requirements:**

1. Applicants must submit an application to the BAS Program and be accepted to Edison State College. Official transcripts from all previously attended colleges or universities must be sent directly to the Office of the Registrar.
2. Applicants must have a minimum cumulative grade point average of 2.0 on a 4.0 scale.

Applicants must possess licensure, certification, or registration from the profession in which the applicant is practicing. Applicants should hold one of the following credentials:

* Registered Respiratory Therapist (RRT) from the National Board for Respiratory Care
* Registered Cardiovascular Invasive Specialist (RCIS) or other registry level credentials from Cardiovascular Credentialing International
* Registered Diagnostic Cardiac Sonographer (RDCS) from the American Registry of Diagnostic Medical Sonographers.

1. Applicants must have earned either:
2. An Associate in Science (AS) degree in either Cardiovascular Technology or Respiratory Care from any college or university accredited by a regional accrediting association as defined by State Board of Education rule, with a minimum of 60 credit hours earned. Current AS students are encouraged to apply for admission during the term in with they will complete their AS degree program/receive their required licensure. **OR**
3. A minimum of 60 credit hours, with all General Education and Electives met, may apply for

admission. Students must possess licensure, certification, or registration from the

profession in which the applicant is practicing as noted above.

**BAS Program Applicants with Associate or Baccalaureate Degrees:**

Students who transfer to Edison State College with a previous associate degree from a Florida College or baccalaureate degree from a regionally accredited university are considered to have met the General Education Core and Elective coursework (60 credit hours) of the degree. Students are permitted to complete any remaining Lower Division, Cardiopulmonary Sciences Program-Specific Coursework while completing Upper Division, Cardiopulmonary Sciences Core Coursework.

**Professional Credit for Previous College-Level (1000-4000) Coursework:**

The Bachelor of Applied Science in Cardiopulmonary Sciences is a degree completion program. A degree completion program is typically designed for a non-traditional undergraduate population such as working adults who have completed some college-level course work but have not achieved a baccalaureate degree. Students in such programs may transfer in credit from courses taken previously and may receive credit for experiential learning.

Applicants who hold licensure, certification, or registration credentials as listed above, may be eligible to receive up to thirty (30) credit hours of lower division credit toward completion of the BAS degree. Through the admissions process, official transcripts from the applicable programs must be furnished to the Office of the Admissions. Program faculty will determine if appropriate nursing outcomes have been attained and if a student may qualify for the award of lower level credit.

**Requirements to Enroll in Upper Division Cardiopulmonary Sciences Coursework (3000-4000) Level:**

1. Attend a mandatory orientation session prior to enrollment in baccalaureate courses.
2. Complete ENC 1101 Composition I, ENC 1102 Composition II, and one college-level mathematics course with grades of “C” or higher.
3. Students are permitted to complete all remaining General Education Core, Electives, Lower Division Program-Specific, and Upper Division Cardiopulmonary Sciences Core coursework.

**Transient Student Enrollment in Upper Division Coursework:**

Transient students must obtain prior approval to enroll in Upper Division Cardiopulmonary Sciences Core coursework. Transient students are currently enrolled college students who register for courses at another institution on a temporary basis (e.g., university student attending summer semester at a state college). In order to take courses at another institution, students must receive approval from their home institution. The application will initiate your request and be routed to the appropriate personnel. Students initiate this process using Florida Virtual Campus at <http://www.flvc.org/>

**Priority Application Deadlines:**

Fall Semester Start – Application due by **August 1**

Spring Semester Start – Application due by **December 1**

Summer Semester Start – Application due by **April 1**

**Graduation Requirements:**

1. Students must satisfactorily complete 120 credit hours as outlined in the Cardiopulmonary Sciences BAS Program of Study
2. To satisfy residency requirements, a minimum of 30 credit hours of Upper Division Cardiopulmonary Sciences Core coursework must be completed at Edison State College.
3. Students must achieve a cumulative grade point average of 2.0 or higher
4. Students must earn a grade of “C” or better in all Upper Division Cardiopulmonary Sciences Core coursework.
5. Students must complete the General Education Core and General Education Electives coursework, including assessment of General Education outcomes that are required by the College. Transfer courses will be reviewed for equivalency.
6. Students must complete an Application for Graduation through the Office of the Registrar and enroll for GRD 4000 the semester in which they intend to graduate. Students must apply for graduation by the published deadline to be assured of final clearance for graduation, timely receipt of diploma, and participation in the graduation ceremony.

**CARDIOPULMONARY SCIENCES, BAS DEGREE PROGRAM OF STUDY:**

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| **GENERAL EDUCATION CORE COURSEWORK**  *Courses must be selected from those listed in the General Education Program Guide. Some may meet Lower Division Program-Specific Coursework but the entire degree requirement of 120 hours must be met.* | | **36 CREDIT HOURS** |
| **COMMUNICATIONS – 9 credit hours** | | |
| ENC 1101 | Composition I | 3 |
| ENC 1102 | Composition II | 3 |
| SPC 1017  **OR**  SPC 2023 | Fundamentals of Speech Communication  **OR**  Introduction to Public Speaking | 3 |
| **HUMANITIES – 6 credit hours** | | |
| HUMANITIES, Part A | Any Listed Course in Humanities Section, Part A | 3 |
| HUMANITIES, Part A or B | Any Listed Course in Humanities, Part A or B | 3 |
| **SOCIAL SCIENCES – 9 credit hours** | | |
| SOCIAL SCIENCES, Part A | Any Listed Course in Social Sciences Section, Part A | 3 |
| SOCIAL SCIENCES, Part A or B | Any Listed Course in Social Sciences Section, Part A or B | 3 |
| SOCIAL SCIENCES, Part A or B | Any Listed Course in Social Sciences Section, Part A or B | 3 |
| **MATHEMATICS – 6 credit hours** | | |
| MATHEMATICS\* | Any Listed Course in Mathematics Section | 3 |
| MATHEMATICS\* | Any Listed Course in Mathematics Section | 3 |
| **NATURAL SCIENCES – 6 credit hours** | | |
| NATURAL SCIENCES | Course with Lab Component | 3 |
| NATURAL SCIENCES | Course with Lab Component | 3 |

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| **ELECTIVE COURSEWORK**  *Credit hours in this section may be earned with any 1000-4000 level Elective coursework or 1000-4000 level Transfer credit from courses taken previously.* | **22 CREDIT HOURS** |

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| **FOREIGN LANGUAGE COMPETENCE**  *Edison State College may determine standards for review of non-traditional foreign language competence for languages not available through CLEP (in languages other than French, German, and Spanish).* | |  |
| FOREIGN LANGUAGE IN HIGH SCHOOL  **OR** | Successful completion of two years of a single foreign language while in high school; official high school transcripts must be submitted | HIGH SCHOOL CREDIT |
| COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)  **OR** | Successful results on CLEP exam | CLEP CREDIT |
| FOREIGN LANGUAGE IN COLLEGE | Successful completion of two semesters of a single foreign language in college | 8 CREDIT HOURS |

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| **LOWER DIVISION, CARDIOPULMONARY SCIENCES PROGRAM-SPECIFIC COURSEWORK**  *If courses listed below were completed in General Education Core, then credit hours in this section may be earned with any 1000-4000 level Elective coursework or 1000-4000 level Transfer credit from courses taken previously.* | | **26 CREDIT HOURS** |
| BSC 1010 | Biological Science I | 3 |
| BSC 1010L | Biological Science I Laboratory | 1 |
| BSC 1093C\* | Anatomy and Physiology I | 4 |
| BSC 1094C | Anatomy and Physiology II | 4 |
| CGS 1000 or higher | Any Computer Course 1000 level or higher | 3 |
| MCB 2010C\* | Microbiology | 4 |
| PHY 1007/1007L **OR**  PHY 2053/2053L | Physics for the Health Sciences **OR**  College Physics I/Laboratory | 4 |
| PHY 2053L\* | College Physics I Laboratory | 1 |
| SPC 1017  **OR**  SPC 2023 | Fundamentals of Speech Communication  **OR**  Introduction to Public Speaking | 3 |

\*BSC 1010/BSC 1010L are required prerequisites for BSC 1093C and MCB 2010C at most institutions.

\*MAC 1114 and MAC 1140 are required prerequisites for PHY 2053/2053L at most institutions.

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| **UPPER DIVISION, CARDIOPULMONARY SCIENCES CORE COURSEWORK** | | **36 CREDIT HOURS** |
| HSC 4159 | Advanced Medical Pharmacology | 3 |
| HSC 4555 | Pathophysiologic Mechanisms | 3 |
| HSC 4652 | Health Care Ethics | 3 |
| RET 4050 | Research Methods | 3 |
| RET 4445 | Cardiopulmonary Diagnostics | 3 |
| RET 4285 | Cardiopulmonary Diagnostics and Intervention | 3 |
| RET 4505 | Chest Medicine | 3 |
| RET 4536 | Cardiopulmonary Rehabilitation | 3 |
| RET 4715 | Advanced Neonatal Medicine | 3 |
| RET 4933 | Selected Topics in Cardiopulmonary Sciences | 3 |
| **SELECT TWO:**  EDF 3214  HSA 3113  HSA 3383  HSA 3430  HSA 4184  HSC 3201  ISC 3120  MAN 3301  RET 4034  HSA  HSC | Human Development and Learning  Contemporary Issues in Health Care  Fundamentals of Quality Management in Health Care  Health Care Economics  Leadership and Management in Healthcare  Community Health  Scientific Process (FGCU course)  Human Resources Management  Problems in Patient Management  Any 3000 or 4000 level course  Any 3000 or 4000 level course | 6 |
| **TOTAL DEGREE PROGRAM, CARDIOPULMONARY SCIENCES, BAS** | | **120 CREDIT HOURS** |