SAN JOAQUIN VALLEY COLLEGE

Associate of Science Degree in Respiratory Therapy: Program Progression

Course progression through the RT program is as shown below. Students must complete courses sequentially; failing a core (RCP) or on-ground general education course* or taking a leave of absence will necessitate a retake of that course, impede progression to the next term, and may delay the student's original graduation date. Days and times are scheduled based on faculty and clinical site availability and may vary.

Term 1: 21 Units/360 Hours/15 Weeks					
Course	**Units**	**Modality**		**Hours**	**Weeks**
MTH 121	3	Online		45	5-week module
MTH 122	3	Online		45	
BIO 24	4	On Ground		75	15-week RT term
RCP 100	7	On Ground		120	
RCP 110	4	On Ground		75	
Break (1 week)					
Term 2: 19 Units/360 Hours/15 Weeks					
Course	**Units**	**Days**	**Time**	**Hours**	**Weeks**
ENG 121	3	Online		45	5-week module
ENG 122	3	Online		45	
CHE 3A	4	On Ground		75	15-week RT term
RCP 120	1	On Ground		45	
RCP 130	4	On Ground		75	
RCP 140	4	On Ground		75	
Break (1 week)					
Term 3: 17 Units/465 Hours/15 Weeks					
Course	**Units**	**Days**	**Time**	**Hours**	**Weeks**
PHIL 1C	3	Online		45	5-week module
BIO 31	4	On Ground		75	15-week RT term
RCP 150	5	On Ground		120	
RCP 210	5	Clinical/Extern		225	
Break (1 week)					
Term 4: 18 Units/480 Hours/15 Weeks					
Course	**Units**	**Days**	**Time**	**Hours**	**Weeks**
PSY 1	3	Online		45	5-week module
RCP 160	3	On Ground		60	15-week RT term
RCP 170	7	On Ground		150	
		On Ground			
RCP 220	5	Clinical/Extern		225	
Break (1 week)					
Term 5: 20 Units/510 Hours/15 Weeks					
Course	**Units**	**Days**	**Time**	**Hours**	**Weeks**
SOC 1	3	Online		45	5-week module
RCP 180	5	On Ground		90	15-week RT term
RCP 190	7	On Ground		150	
RCP 230	5	Clinical/Extern		225	

*Failure of a general education course taught solely online does not impede course progression. The course must be repeated and successfully completed to graduate from the program.

Technical Standards and Functional Abilities for Respiratory Therapy

Students should be made aware of the technical standards/functional abilities required to work in the field and throughout the program. Students may request reasonable accommodations to meet the following criteria by making a written request to the Program Director. SJVC does not discriminate on the basis of race, color, national origin, sex, disability, age, or any other protected characteristic in its education programs and activities.

Technical Standards	Examples
1. Gross Motor Skills • Move within confined spaces • Sit and maintain balance • Stand and maintain balance • Reach above shoulders • Reach below waist	***Examples*** Function in an ICU environment: move about in an ICU room in order to perform procedures on the patient. Must also read patient chart, equipment settings, and/or equipment displays. Sit to record findings. Change equipment settings above head and below waist, plug electrical appliance into wall outlets.
2. Fine Motor Skill • Pick up objects with hands • Grasp small objects with hands • Write with pen or pencil • Key/type • Pinch/pick or work with fingers • Twist • Squeeze with fingers	***Examples*** Lift medication vials to eyes to read. Squeeze medication vials to empty. Squeeze Ballard suction catheter button. Grasp hold and read small instruments such as volume measuring devices. Write in patient chart. Record patient data in record. Change settings on equipment by turning knob and observing change.
3. Physical Endurance • Stand in-place for prolonged periods • Sustain repetitive movements • Maintain physical tolerance for up to 12 hours • Ability to perform activities on day, evening, or night shifts.	***Examples*** Stand and perform repetitive procedure(s) on patients such as Chest Physical Therapy and CPR. Repeat this procedure periodically throughout an 8-hour or 12-hour shift.
4. Physical Strength • Push and pull 25 pounds • Support 25 pounds • Lift 25-80 pounds • Carry equipment/supplies • Use upper body strength • Squeeze with hands	***Examples*** Assist patient from bed to chair. Hoist patient up in bed. Move patient from stretcher to bed and back. Carry medications, pulse oximeter, stethoscope or other equipment to patient room. Push ventilator or other heavy equipment from respiratory care department to patient room. Move other equipment such as Pulse Oximeter, IPPB or IPV machine. Lift equipment from bed height to shelf height above chest level. Push on chest for chest compressions during basic and advanced CPR on adult, child, and infant patient populations. Lift head and neck with one hand using a laryngoscope.
5. Mobility • Twist • Bend • Stoop/squat • Move quickly • Climb • Walk	***Examples*** Turn to change settings on monitor while standing at patient bedside. Bend to change equipment settings on floor, at knee level, waist level, chest level, eye level, above head. Gather equipment and manually resuscitate patient without delay. Make rapid adjustments if needed to ensure patient safety. Make way to patient room if an emergency is called using stairs.
6. Hearing • Hear normal speaking level sounds • Hear faint voices • Hear faint body sounds • Hear in situation when not able to see lips • Hear auditory alarms	***Examples*** Listen to patient breath sounds to determine if patient is breathing. Listen to heart sounds to determine if heart is beating. Determine the intensity and quality of patient breath sounds in order to help determine a diagnosis. Hear audible alarms such as a ventilator alarm. Hear overhead pages to call for emergency assistance.

Technical Standards (cont.)	Examples
7. Visual • See objects up to 20 inches away • See objects up to 20 feet away • Use depth perception • Use peripheral vision • Distinguish color • Distinguish color intensity	***Examples*** Read patient chart to determine correct therapy. Visually assess patient color to assess for hypoxia. Read settings on monitors and other equipment. Visually assess for changes. Confirm settings visually such as with ventilator display.
8. Tactile • Feel vibrations • Detect temperature • Feel differences in surface characteristics • Feel differences in sizes, shapes • Detect environmental temperature	***Examples*** Assess patient by feeling for patient pulse, temperature, tactile fremitus, edema, subcutaneous emphysema.
9. Smell • Detect odors from patients • Detect smoke • Detect gases or noxious smells	***Examples*** Assess for noxious odors originating from the patient or environment (example gas leak or smoke).

Functional Abilities	Examples
10. Reading • Read and understand written documents	***Examples*** Read and interpret physician orders, and physician, therapist and nurses notes. Read from a computer monitor screen. Gather data reasonably accurate, and in a reasonable amount of time to ensure safe and effective patient care relative to other care givers.
11. Math Competence • Read and understand columns of writing • Read digital displays • Read graphic printouts • Calibrate equipment • Convert numbers to/from the metric system • Read graphs • Tell time • Measure time • Count rates • Use measuring tools • Read measurement marks • Add, subtract, multiply, and/or divide whole numbers • Compute fractions • Use a calculator • Write numbers in records	***Examples*** Read and interpret patient graphics charts and graphic displays. Perform basic arithmetic functions in order to calculate minute ventilation, convert temperature, correctly place graduated tubing, and other functions.
12. Emotional Stability • Establish appropriate emotional boundaries • Provide emotional support to others • Adapt to changing environment/stress • Deal with the unexpected • Focus attention on task • Monitor own emotions • Perform multiple responsibilities concurrently • Handle strong emotions	***Examples*** Provide for safe patient care despite a rapidly changing and intensely emotional environment. Perform multiple tasks concurrently, example: delivery of medication or oxygen in one room while performing an arterial blood gas in another such as in an emergency room environment. Maintain enough composure to provide for safe and effective patient care despite crisis circumstances.

Functional Abilities (cont.)	Examples
13. Analytical Thinking • Transfer knowledge from one situation to another • Process information • Evaluate outcomes • Problem solve • Prioritize tasks • Use long-term memory • Use short-term memory	***Examples*** Evaluate different sources of diagnostic information to help arrive at a patient diagnosis. Evaluate priorities in order to provide for the most appropriate care. Appropriately evaluate data in order to notify physician and nursing when necessary.
14. Critical Thinking • Identify cause-effect relationships • Plan/control activities for others • Synthesize knowledge and skills • Sequence information	***Examples*** Evaluate different sources of diagnostic information to help arrive at a patient diagnosis and treatment. Evaluate data in order to formulate an appropriate action plan.
15. Interpersonal Skills • Negotiate interpersonal conflict • Respect differences in patients, fellow students, and members of the healthcare team. • Establish rapport with patients, fellow students, and members of the healthcare team.	***Examples*** Communicate effectively with disagreeable patients, family doctors, and nurses and other staff in order to attempt to meet therapeutic goals for the patient.
16. Communication Skills • Teach • Explain procedures • Give oral reports • Interact with others • Speak on the telephone • Influence people • Convey information through writing	***Examples*** Communicate effectively and appropriately with doctors, nurses, patients, family, and other staff in order to provide for most effective and efficient patient care.

SAN JOAQUIN VALLEY COLLEGE

Associate of Science Degree in Respiratory Therapy: Course Descriptions

CORE COURSES: ON-GROUND

BIO 24: Human Anatomy and Physiology
4.0 units – 75 hours
This course provides students in health majors with an introduction to the structure and function of the major organs, essential structures, and physiological principles of the human body with emphasis on primary organ systems. Integration of multi-organ functions and relevant terminology will be included. **A grade of C or higher is required to pass this course.**

BIO 31: Microbiology
4.0 units – 75 hours
An introduction to microbiology covering the fundamental aspects of taxonomy, morphology, classification, genetics and reproduction, physiology, nutrition and growth, control, host-parasite relationships, and immunology. Bacteria, fungi, protozoa, viruses and the roles and importance in the biological world will be covered. Basic techniques for culturing, staining, counting, and identifying microorganisms are emphasized in the laboratory. **A grade of C or higher is required to pass this course.**

CHE 3A: Introduction to General Chemistry
4.0 units – 75 hours
This course focuses on composition of matter and physical and chemical changes; fundamental laws and principles; atomic and molecular structure; acid-base chemistry, redox, equilibria, qualitative and quantitative techniques and theory. **A grade of C or higher is required to pass this course.**

RCP 100: Introduction to Respiratory Care
7.0 units – 120 hours
This course provides an introduction to the physical world to students in health majors and practices encountered within health care environments. Topics will include classroom theory and laboratory exploration of physical dynamics as they relate to health professions, with an emphasis in respiratory care, as well as, advanced directives, patient bill of rights, bioterrorism preparedness and management. Procedures and practices related to common settings will be explored. **A grade of C or higher is required to pass this course.**

RCP 110: Pharmacology
4.0 units – 75 hours
This course will study the drugs administered to treat pulmonary disease. It will also include other classifications of drugs that have an effect on cardiopulmonary status. Areas will include drug calculations, indications, classification, proper dosage, modes of administration, the physiological actions of pharmacokinetics, pharmacodynamics, and pharmacogenetics, side effects, precautions, hazards, therapeutic effects and patient monitoring. **A grade of C or higher is required to pass this course.**

RCP 120: Clinical Laboratory Practice
1.0 unit – 45 hours
This course will prepare the student for their clinical rotations with preparatory requirements, certifications, orientations, introduction to ClinicalTrac clinical management system, safety procedures, and clinical seminars. **A grade of C or higher is required to pass this course.**

RCP 130: Fundamentals of Respiratory Care
4.0 units – 75 hours
This course provides an introduction to the physical world to students in health majors and practices encountered within health care environments. Topics will include classroom theory and laboratory exploration of physical dynamics as they relate to health professions, with an emphasis in respiratory care, as well as, advanced directives, patient bill of rights, bioterrorism preparedness and management. Procedures and practices related to common settings will be explored. **A grade of C or higher is required to pass this course.**

RCP 140: Respiratory Care Pathophysiology
4.0 units – 75 hours
The focus of this course is on the cardiopulmonary systems and the application of protocol-based clinical Respiratory Therapy treatment to deliver disease-specific patient care. Respiratory pathophysiology, assessment techniques and indices, basic pharmacology as it applies to the treatment and prevention of pulmonary disease, humidity and aerosol modalities as they apply to the treatment of pulmonary disease, electrophysiology, and correlation of acid-base and arterial blood gas interpretation are among the topics emphasized. **A grade of C or higher is required to pass this course.**

RCP 150: Ventilatory Principles of Respiratory Care
5.0 units – 120 hours
The focus of this course is management of the airway and mechanical ventilation. Topics include endotracheal intubation, resuscitation devices, invasive and non-invasive ventilation, and initiation, monitoring, managing,

and discontinuation of mechanical ventilation. Students will apply hemodynamics to positive pressure ventilation. **A grade of C or higher is required to pass this course.**

RCP 160: Critical Care Principles of Respiratory Care
3.0 units – 60 hours
The focus of this course is management of the airway and mechanical ventilation. Topics include endotracheal intubation, advanced airway management, resuscitation devices, invasive and non-invasive ventilation, tracheostomy care, and initiation, monitoring, managing, and discontinuation of mechanical ventilation. Students will apply hemodynamics to positive pressure ventilation. **A grade of C or higher is required to pass this course.**

RCP 170: Neonatal and Pediatric Respiratory Care
7.0 units – 150 hours
The focus of this course is special applications in respiratory care, and neonatal and pediatric respiratory care. Topics include neonatal and pediatric anatomy, physiology, and pathology. Specialized diagnostics and certifications also occur during this course. **A grade of C or higher is required to pass this course.**

RT 180: Specialized Respiratory Care
5.0 units – 90 hours
The focus of this course is advanced pulmonary function testing and critical care with emphasis on hemodynamic monitoring. Topics include advanced physical, radiological, and clinical laboratory assessment along with invasively monitored cardiac assessment and special procedures. Routine and specialized pulmonary function tests are also covered. **A grade of C or higher is required to pass this course.**

RCP 190: Advanced Respiratory Care
7.0 units – 150 hours
The focus of this course is alternate work sites and job readiness for successful employment in Respiratory Care. Topics include land/air patient transport, disaster management, patient and family education and health management, case management, home care, long term care, pulmonary rehabilitation, and sleep studies. Job readiness along with licensure and credentialing examination preparation also occurs in this course. **A grade of C or higher is required to pass this course.**

RCP 210: Clinical Practice – Rotation 1
5.0 units – 225 hours
Students will participate in clinical rotations in acute and sub-acute respiratory therapy conducted at local hospitals and medical centers. The student will be assessed on supervised clinical practice and completion of clinical assignments and performance objectives. **A grade of C or higher is required to pass this course.**

RCP 220: Clinical Practice – Rotation 2
5.0 units – 225 hours
Students will participate in clinical rotations in adult intensive care, emergency care, and pediatric floor care conducted at local hospitals and medical centers. The student will be
assessed on supervised clinical practice and completion of clinical assignments and performance objectives. **A grade of C or higher is required to pass this course.**

RCP 230: Clinical Practice – Rotation 3
5.0 units –225 hours
Students will participate in advanced rotations in adult, pediatric, and neonatal critical care conducted at local hospitals and medical centers. Specialized clinical experiences, as available, in respiratory home care, asthma education, pulmonary function testing, sleep studies, land/air patient transport, intra-hospital patient transport, disaster management, medical emergency team (MET) and pulmonary rehabilitation. The student will be assessed on supervised clinical practice and completion of clinical assignments and performance objectives. **A grade of C or higher is required to pass this course.**

GENERAL EDUCATION COURSES: ONLINE

ENG 121: Composition and Reading – Part A
3.0 units/45 hours
This is the first in a two-part, college-level English course. In this course, students will learn the foundation of critical reading and writing in a variety of rhetorical modes. Students will read various essays and literature, and apply critical analysis to their own writing. Students will practice all aspects of the writing process, and by the end of Part B, they will meet a goal of writing a minimum of 6000 words through a variety of assignments.

ENG 122: Composition and Reading – Part B
3.0 units – 45 hours
This is the second part of our college-level English course. By building on the skills learned in Part A, students will continue to critically read and write in a variety of rhetorical modes. Students will read various essays and literature, and apply critical analysis to their own writing. In this course they will build information literacy skills through research, and describe the connection between effective communication and professionalism. Students will complete their goal of writing a minimum of 6000 words.

MTH 121: College Algebra – Part A
3.0 units – 45 hours
This course integrates technology with mathematics through the use of online learning resources, and covers the fundamentals and terminology of algebra. Topics include real numbers, order of operations, single and multiple step linear equations and inequalities, use of formulas, algebraic expressions, polynomials, systems of equations, and graphing of linear equations. Students will utilize the metric and U.S. standard systems. The fundamentals and real-world formulaic terminology will be provided. This course offers applications that allow students to relate to and to apply concepts to their field of study.

MTH 122: College Algebra – Part B
3.0 units – 45 hours
This course integrates technology with mathematics through the use of online learning resources. Topics include use of formulas, algebraic expressions, polynomials, exponential and logarithmic expressions, and quadratic equations. Students will utilize rational and radical expressions and conics functions. This course offers applications that allow students to relate to and to apply concepts to their field of study.

PHIL 1C: Ethics
3.0 units – 45 hours
This course provides an introduction to the ethical problems and issues in modern society. Students will discuss current events related to ethical issues and participate in group discussions.

PSY 1: General Psychology
3.0 units/45 hours
This course covers the study of human behavior, moral development, and psychological theory as it applies to the individual, group, and community. Behavioral disorders and treatment, social perceptions, emotions and motivation, social influence, and group processes are topics included in this course.

SOC 1: Introduction to Sociology
3.0 units – 45 hours
This course is a survey of social structure, theory, and its implications for individuals in a dynamic view of the environment. Cultures, family, organizations, groups, ethnic and political influences, and politics are the topics covered.