Respiratory Therapy

Contact Persons: *Marybeth Emmerth, M.S., RRT, CPFT*
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The curriculum is designed to provide a thorough grounding in the basic sciences, underlying allied health technologies, clinical training emphasizing the application of fundamental principles and a liberal arts foundation which allows the student to explore the human and ethical aspects of health care practice. The Student Handbook outlines the specific requirements for successful completion of the bachelor of science degree. Course sequence may be slightly altered.

Upon completion of the Respiratory Therapy program, students will be able to demonstrate the ability to:

1. Comprehend, apply and evaluate information relevant to their role as a Respiratory Therapist (Cognitive).
2. Possess personal behaviors consistent with professional and employer expectations (Affective).
3. Be technically proficient in all the skills necessary to fulfill the role of a respiratory therapist (Psychomotor).

Requirements for Respiratory Therapist Bachelor of Science Degree

In addition to completing the core curriculum requirements, outlined on pp. 14-15 of this catalog, the respiratory therapy major must complete the following courses with a letter grade of "C" or better and must maintain a 2.3 GPA in all math and science courses to enter clinical practicum.

BIO 107, 121	Evolution & Ecology and Lab	(3 and 1 crs)
BIO 127, 128	Anatomy & Physiology I & Lab	(3 and 1 crs)
BIO 129	Anatomy & Physiology II	(3 crs)
BIO 242	Cardiopulmonary Physiology	(3 crs)
*CHE 105/110	Introductory General Chemistry	(3 crs)
*CLS/PHY 130	Physics for Allied Health	(3 crs)
CLS 215	Concepts of Microbiology and Epidemiology	(2 crs)
CLS 234	Pathophysiology	(3 crs)
CLS 311	Introduction to Pharmacology	(1 cr)
CLS 312	Emergency Life Support Techniques	(3 crs)
CLS 320	Management Techniques for the Health Sciences	(2 crs)
CLS 330	Principles of Instruction	(2 crs)
RET 212	Intro. to Respiratory Therapy Equipment and Procedures (lecture)	(3 crs)
RET 320	Respiratory Pharmacology	(1 cr)
RET 325	Adult Respiratory Therapy Equipment and Procedures	(3 crs)
RET 330	Pulmonary Functions and Arterial Blood Gases	(3 crs)
RET 340	Pulmonary Rehabilitation and Current Topics in Respiratory Care	(3 crs)
RET 345	Neonatal and Pediatric Respiratory Care	(3 crs)

(* or higher level course)

Clinical Practicum including:

RET 262	Intro. to Clinical Principles	(1 cr)
RET 362	Clinical Orientation	(2 crs)
RET 363	Principles of General Care I	(3 crs)
RET 365	Introduction to Anesthesia	(1 cr)
RET 366	Principles of Critical Care I	(4 crs)
RET 464	Pulmonary Functions	(2 crs)
RET 465	Principles of General Care II	(4 crs)
RET 466	Principles of Critical Care II	(4 crs)
RET 467	Rehab. and Home Care	(2 crs)
RET 468	Clinics	(1 cr)
RET 469	Emergency Medicine	(1 cr)
NUR/RET 412	Critical Thinking Skills	(1 cr)
NUR/RET 424	Advanced Cardiac Life Support	(1 cr)
NUR/RET 430	EKG Interpretation	(1 cr)
RET 482	Special Project I	(1 cr)
RET 483	Special Project II	(1 cr)
RET 484	Special Project III	(1 cr)

Electives (Not Required)

RET 420	Registry Review for Respiratory Therapy	(1 cr)
RET 480	Advanced Clinical	(1 to 2 crs)

Course Descriptions

RET 212 Introduction to Respiratory Therapy Equipment and Procedures (3 crs)
The operating principles, maintenance and application of nebulizers, regulators, oxygen analyzers, basic oxygen equipment, piping systems, various safety systems used in respiratory care and proper cleaning techniques. Includes basic pulmonary assessments, blood gas interpretations. Prerequisite: Acceptance into Respiratory Therapy Program.

RET 262 Introduction to Clinical Principles (1 cr)
This course is designed to bring the topics of RET 212 to life by providing a hands-on environment that permits the student to practice techniques before he or she goes to clinical sites. It begins with basic assessment techniques and covers most topics of 212 as lab and includes field trips to the hospital for observation of said therapies.

RET 320 Respiratory Pharmacology (1 cr)
A study of the application, uses and effects of pharmacological agents administered by respiratory therapists, and those affecting the cardiovascular system. Prerequisite: CLS 311.

RET 325 Adult Respiratory Therapy Equipment and Procedures (3 crs)
The operating principles, maintenance and application of respirators and other advanced equipment and monitoring devices as they apply to the adult patient. Suctioning, airways, chest physical therapy and incentive spirometry, PEP Therapy and IPPB are also covered. Prerequisite: RET 212.

RET 330 Pulmonary Function and Blood Gases (3 crs)
Introduces the student to bronchoscopy and basic pulmonary function procedures and interpretation, operation of equipment and technology, blood gas analysis and its application to respiratory care. Prerequisites: RET 212, RET 325.

RET 340 Pulmonary Rehabilitation and Current Topics in Respiratory Care Techniques (3 crs)
Pulmonary rehabilitation, basic chest X-ray interpretation, non-invasive monitoring, smoking cessation and RT Math. Prerequisites: RET 212, RET 325.

RET 345 Neonatal and Pediatric Respiratory Care (3 crs)
Basic fetal development, neonatal and pediatric conditions, congenital heart defects and the use of advanced equipment in the care of disease states. Prerequisite: RET 212, RET 325.

RET 362 Clinical Orientation (2 crs) (a clinical practicum)
This course is designed to orient the student to the respiratory care environments. An introduction to basic procedures in the laboratory leading to basic administration of therapies in the general care areas of the hospital. Prerequisite: Sophomore status in good standing.

RET 363 Principles of General Care I (3 crs) (a clinical practicum)
The student will be exposed to principles of nursing, patient care and respiratory care in general surgical, medical, pulmonary function and rehabilitation areas. Prerequisite: Junior status in good standing.

RET 365 Introduction to Anesthesia (1 cr) (a clinical practicum)
This course is designed to familiarize the student with surgical procedures, sterile technique, intubation, airway maintenance and principles of anesthesia. Prerequisite: Completion of pre-practicum courses.

RET 366 Principles of Critical Care I (4 crs) (a clinical practicum)
This course will familiarize the student with all aspects of ventilator management, airway maintenance and principles of respiratory management of the critically ill patient. Prerequisite: Completion of pre-practicum courses.

RET 412 (NUR 412) Critical Thinking Skills (2 crs) (spring)
Critical thinking and problem solving skills are applied to patient situations involving complications. Prerequisites: Same as 430.

RESPIRATORY THERAPY - Recommended Course Sequence

	Freshman		Sophomore		Junior		Senior	
FALL	FYS 101	1	*CLS/PHY 130	3	RET 325	3	RET 464	2
	BIO 128	3	BIO 107 or 109	3	CLS 234	3	RET 465	4
	BIO 127	1	SSC/INS	3	CLS 311	1	RET 466	4
	HIS 110	3	PHI 105	3	RET 320	1	RET 467	2
	ENG 105	3	RST 2xx/3xx	3	CLS 312	3	RET 468	1
	MAT 105	3	BIO 121	1	RET 362	2	RET 469	1
	PSY 110	3			CLS 330	2	RET 483	1
							NUR/RET 430	1
	Semester total	17		16		15		16
SPRING	HIS 120	3	RET 212	3	RET 330	3	RET 484	1
	ENG 120	3	BIO 242	3	RET 340	3	ENG 250	3
	RST 106/107	3	CLS 215	2	RET 345	3	RST/PHI 305	3
	CHE 105	3	PHI 205	3	RET 363	3	RET 420 (elective)	1
	BIO 129	3	SPA 106	3	CLS 320	2	RET 480 (elective)	1-2
			RET 262	1			NUR/RET 424 (elective)	1
							NUR/RET 412	2
							FAS 1xx	3
	Semester total	15		15		15		15-16
SUMMER					RET 365	1		
					RET 366	5		
					RET 482	1		
	Semester total					7		
	Total Credits	32		31		37		31/32 131+

RET 420Registry Review for Respiratory Therapy (1 cr) (elective)
Designed to review necessary information for passing the national licensure examination for respiratory care. Prerequisite: Completion of the pre-practicum and all clinical practicum courses.

RET 424 (NUR 424) ACLS (Advanced Cardiac Life Support) (1 cr)
This course is designed to prepare the student for the ACLS certification exam. Through the use of critical thinking, the student will develop an understanding of the treatment of a client in an arrest state. Prerequisite: NUR 430.

RET 430 (NUR 430) Basic EKG (1 cr)
This course focuses on the identification of cardiac dysrhythmias, benign and lethal, including causes and symptoms accompanying each dysrhythmia. Through the use of practice telemetry strips, students will then apply interpretation skills in a clinical setting.

RET 464 Pulmonary Function (2 cr) (a clinical practicum)
The student will be instructed in the performance of pulmonary function tests, the drawing of arterial blood gases, analysis of samples, interpretation of results; and observation and assistance with fiberoptic bronchoscopes exercise stress testing. Prerequisite: Completion of pre-practicum courses.

RET 465 Principles of General Care II (4 crs) (a clinical practicum)
This course is designed for the student to administer therapy in the general care area with clinical supervision. The student will apply and refine skills presented in RET 363, Principles of General Care I, and become skilled in 12 lead EKG and chest physical therapy and monitoring techniques. Prerequisite: Completion of pre-practicum courses.

RET 466 Principles of Critical Care II (4 crs) (a clinical practicum)
This course will give the student more direct responsibility for the patient-ventilator system in the adult and pediatric intensive care areas. The student will apply and refine skills presented in RET 366, Principles of Critical Care I, and spend 1 week with pulmonary physician as well as the integration of didactic and clinical investigation of case studies. Prerequisitez: Completion of pre-practicum courses.

RET 467 Rehabilitation and Home Care (2 crs) (a clinical practicum)
This course places the student in hospital rehabilitation centers and home health care services. The student will be exposed to principles of outpatient management and rehabilitative medicine. Prerequisite: Completion of pre-practicum courses.

RESPIRATORY THERAPY - PRE-PHYSICAL THERAPY - Recommended Course Sequence

	Freshman		Sophomore		Junior		Senior		
FALL	FYS 101	1	BIO 109	3	RET 325	3	RET 483	1	
	BIO 128	3	BIO 121	1	CLS 234	3	RET 465	4	
	BIO 127	1	PHY 110	4	CLS 311	1	RET 466	4	
	HIS 110	3	PHY 121	1	RET 320	1	RET 469	1	
	CHE 110	4	PHI 105	3	CLS 312	3	RET 468	1	
	CHE 121	1	PSY 110	3	RET 362	2	RET 467	2	
	SSC/INS	3			CLS/PHY 130	3	NUR/RET 430	1	
							RET 464	2	
	Semester total	16		15		16		16	
SPRING	HIS 120	3	RET 212	3	RET 330	3	RET 412	2	
	ENG 105	3	BIO 242	3	RET 340	3	RET 484	1	
	RST 106/107	3	CLS 215	2	RET 345	3	ENG 250	3	
	MAT 108	3	PHI 205	3	RET 363	3	RST/PHI 305	3	
	BIO 129	3	SPA 106	3	CLS 320	2	PSY 115	3	
			RET 262	1	ENG 120	3	RET/NUR 424 (elective)	1	
			RST 2xx/3xx	3			RET 420 (elective)	1	
							FAS 1xx	3	
	Semester total	15		18		17		17	
SUMMER					RET 365	1			
					RET 366	5			
					RET 482	1			
					CLS 330	2			
	Semester total					9			
	Total Credits	30		33		42		33	138

RET 468 Clinics (1 cr) (a clinical practicum)
The student will be placed in various clinics to observe the screening, diagnostic process and management of patients. Exposure to specific disease management, X-ray evaluation, angiography and heart lung bypass techniques are included. Prerequisite: Completion of pre-practicum courses.

RET 469 Emergency Medicine (1 cr) (a clinical practicum)
Placement in the emergency room, intensive care settings and on the cardiac arrest team for an orientation to triage and emergency intervention. Prerequisite: Completion of pre-practicum courses.

RET 480 Advanced Clinical Experience (1-2 crs) (elective)
Elective course in a specialized clinical area, directed by a therapist or physician and resulting in a summary paper. (Cooperative)

RET 482 Special Project (1 cr) (summer)
Preparation for a research project, including the design, organization and statistics used. A proposal for IRB review is required.

RET 483 Special Project (1 cr) (fall)
Continuation of research project with any modification and the start of data collection.

RET 484 Special Project (1 cr) (Spring)
Completion of research project with data analysis and an oral and written presentation of the research project.

Social Science

Contact Person: Robert J. Phillips, Ph.D.

Social Science is a curriculum that helps students develop the knowledge and skills needed to analyze societal structures and problems, and not only to plan, but also implement programs aimed at alleviating the latter.

Course Descriptions

SSC 105 Social Science from a Global Perspective (3 crs)
An introduction to the study of human group behavior from both a sociological and global perspective. This includes a brief survey of the origins, development and modes of inquiry of social science. Key concepts and distinctive approaches of major disciplines will be presented including anthropology, economics, geography, political science, psychology and sociology.

SSC 110 Introductory Anthropology (3 crs)
Physical and cultural anthropology. Brief discussion of origins, perspectives and research methods of the discipline. Consideration of evolutionary and non evolutionary theories. Examination of human beings as social and culture-creating entities in the linguistic, marital, educational, economic, political and religious spheres.

SSC 327 Research Methods (3 crs)
A multi-faceted approach to problems of research design, data collection, data analysis. The course is intended to provide majors in social science fields an opportunity to explore and develop a topic for the senior thesis. It is, however, open to students in all fields who seek a fundamental introduction to doing research. Prerequisites: junior standing.

SSC 415 Statistical Analysis (3 crs)
A study of the different techniques used in the social sciences to analyze, intrepret and evaluate data. The course is intended to provide students conducting a senior thesis, in social science, the necessary skills to organize and summarize their data using descriptive and inferential statistics. Prerequisites: senior standing, MAT 105, SSC 327.

SSC 488 Senior Thesis (3 crs)
This course is designed to allow students to develop and conduct research in their area of study/interest. Students will formulate a thesis question and utilize various research methodologies to collect data in support of their hypotheses, as well as conduct a thorough review of the literature regarding their topic. Upon completion of the project, a formal presentation/defense will be made in front of the other members of the class and the entire faculty of the department. Prerequisites: senior standing, MAT 105, SSC 327.

SSC 489 Senior Seminar (3 crs)
Students participate in an integrative seminar designed to enable them to identify significant issues which arise in the serious study of society, and to relate their personal philosophies and Judeo-Christian perspectives to alternative courses of action. The seminar also includes a comprehensive oral examination which each student must pass in order to graduate. Prerequisites: senior standing, SSC 488.