

Respiratory Care

Respiratory Care Major

Respiratory Care (RC) is an allied health profession that involves the evaluation, treatment, and education of patients with cardiopulmonary (heart-lung) disorders. Respiratory therapists (RTs) work closely with physicians, nurses, and other allied health members in critical care, emergency rooms, newborn nurseries and pediatrics, medical units, and home care. RTs perform diagnostic tests that assist a physician to diagnose and monitor lung disease, administer a variety of treatments to alleviate breathing problems, manage mechanical ventilators and life support equipment, direct pulmonary rehabilitation activities, and educate patients and their families about their disease process, therapy and wellness.

A Bachelor of Science degree, Respiratory Care major, includes two to three years of academic course work on campus and a 15-month professional level internship in the Respiratory Care Department at Sanford Medical Center, Fargo, N.D. where students' class and clinical education is specifically applied to the practice of respiratory care. The NDSU/Sanford Respiratory Care Program is accredited by the Commission on Accreditation for Respiratory Care. RC graduates are eligible to write the national certifying examinations leading to the registered respiratory therapist (RRT) credential.

Academic course work includes chemistry, physics, anatomy and physiology, microbiology, college algebra, psychology, and computer science, in addition to general education courses. The full-time professional internship at Sanford consists of lecture, laboratory, and clinical education that prepares the student to enter the profession of respiratory care. Near the end of the professional program, students choose a specialty area of practice for a focused clinical experience. Common specialties include neonatal/pediatric general or intensive care, adult general or intensive care, diagnostics, pulmonary rehabilitation, home care, education, and management (RC 494 Individual Study).

Qualified students apply for the professional internship during the spring of the academic year they plan to complete all prerequisite courses. The application deadline is March 1 annually. Admission is selective and based upon successful completion of all prerequisite courses with a minimum grade of 'C' (a minimum of 20 resident credits at NDSU for transfer students), cumulative and "core" course grade point average (a minimum of 2.50 is required; a maximum of core course attempts is two), references, personal interview, and related experience. In addition, students must comply with criminal background and student conduct requirements.

Information about the profession, curriculum, internship, and advising contacts are available from the Department of Allied Sciences (<https://www.ndsu.edu/alliedsciences>).

Major Requirements

Respiratory Care Major

Degree Type: B.S.

Required Degree Credits to Graduate: 128

General Education Requirements

First Year Experience (F):

UNIV 189	Skills For Academic Success (Students transferring in 24 or more credits do not need to take UNIV 189)	1
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Communication (C):

ENGL 110	College Composition I	3
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ENGL 120	College Composition II	3
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One Course in Upper Level Writing. Select one of the following:		3
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ENGL 320	Business and Professional Writing	
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ENGL 321	Writing in the Technical Professions	
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ENGL 322	Writing and the Creative Process	
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ENGL 323	Creative Writing	
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ENGL 324	Writing in the Sciences	
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ENGL 325	Writing in the Health Professions	
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ENGL 358	Writing in the Humanities and Social Sciences	
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ENGL 459	Researching and Writing Grants and Proposal	
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COMM 110	Fundamentals of Public Speaking	3
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Quantitative Reasoning (R):

STAT 330	Introductory Statistics	3
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Science & Technology (S):

BIOL 220	Human Anatomy and Physiology I	4
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& 220L	and Human Anatomy and Physiology I Laboratory	
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CSCI 114	Microcomputer Packages	3-4
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or CSCI 116	Business Use of Computers	
PHYS 120	Fundamentals of Physics	3
Humanities & Fine Arts (A): Select from current general education list		6
Social & Behavioral Sciences (B):		
PSYC 111	Introduction to Psychology	3
Select from current general education list		3
Wellness (W): Select from current general education list		2
Cultural Diversity (D): Select from current general education list		
Global Perspectives (G): Select from current general education list		
Total Credits		40-41

Major Requirements

General Education Requirements		40
Respiratory Care Major Requirements		
RC 200	Introduction to Respiratory Care	1
RC 496	Field Experience	51
RC 494	Individual Study	4
Advanced clinicals including the capstone experience.		
Related Courses Required:		
BIOL 221 & 221L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	4
CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
CHEM 240	Survey of Organic Chemistry	3
CHEM 260 or BIOC 460	Elements of Biochemistry Foundations of Biochemistry and Molecular Biology I	3-4
HNES 210	Professional Rescuer CPR/AED and First Aid	1
MATH 103	College Algebra (or higher level; excluding MATH 104)	3
Select one MICR course & lab from the following:		3-5
MICR 202 & 202L	Introductory Microbiology and Introductory Microbiology Lab	
MICR 350 & 350L	General Microbiology and General Microbiology Lab	
PHRM 125	Medical Terminology for Health Professionals	1
Special Major Electives (department approved)		
Sociology: Select one of the following:		3
SOC 426	Sociology of Medicine	
SOC 440	Sociology of Aging	
SOC 441	Death and Dying	
Communication: Select one of the following:		3
COMM 308	Business and Professional Speaking	
COMM 315	Small Group Communication	
COMM 380	Health Communication I	
COMM 381	Patient-Provider Communication	
COMM 383	Organizational Communication I	
Total Credits		128-131

Degree Requirements and Notes

- All required courses must be completed with a grade of 'C' or above. All students must maintain a semester GPA of 2.0 or above for each semester in the College. A student who fails to meet this standard for two successive or three non-successive semesters may be terminated from enrollment in the College.

- Completion of the prerequisites does not guarantee a student internship. Selection of interns is competitive. Please consult your Respiratory Care advisor for more information.

- Core courses have a maximum of two attempts allowed. These include:

BIOL 220 & 220L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
PHYS 120	Fundamentals of Physics	3
BIOL 221 & 221L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	4
CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
CHEM 240	Survey of Organic Chemistry	3
CHEM 260 or BIOC 460	Elements of Biochemistry Foundations of Biochemistry and Molecular Biology I	4
MATH 103	College Algebra	3
One MICR course & lab from the following:		3-5
MICR 202 & 202L	Introductory Microbiology and Introductory Microbiology Lab	
MICR 350 & 350L	General Microbiology and General Microbiology Lab	
PHRM 125	Medical Terminology for Health Professionals	1