2010-2011 Course Catalog

The University Of Montana

Department of Health Professions

- Special Degree Requirements
- Courses

Anne Delaney, Chair

*See addendum for changes to the course numbers, re-adding the "T", to the Respiratory Care courses due to the non-completion of common course numbering prior to the autumn 2010/spring 2011 academic year that was made after the catalog was published.

Special Degree and Certificate Requirements

The Health Professions Department of the University of Montana seeks to prepare students to be health practitioners who are technically competent and who are effective in a variety of clinical, agency and community settings. The Health Professions Department offers five Associate of Applied Science (A.A.S.) Degrees, one Associate of Science (A.S.) Degree, and one Certificate of Applied Science (CAS) program with courses and learning experiences that contribute to understanding the health needs of individuals and society. Clinical affiliations and on-site experiences are essential elements of all programs; local communities, their agencies, and organizations are a valuable resource and provide cooperative learning experiences in health delivery systems.

The goals of the Health Professions Department are:

1. To provide programs of study which integrate a variety of health-related disciplines to prepare students for careers in health professions.
2. To contribute to the liberal education of students through courses designed to provide an understanding of human health, fitness and health delivery systems.
3. To meet the continuing education needs of health professionals.

The Health Professions Department offers A.A.S. degrees in Medical Assisting, Practical Nursing (PN), Radiologic Technology, Respiratory Care, Surgical Technology, an A.S. degree in Registered Nursing (ASRN), and a Certificate in Applied Science (CAS) in Pharmacy Technology. Admission to a specific Health Professions (HP) program requires documented completion of the Associate of Arts (AA) prerequisite courses as required by the specific HP program to which the student is applying. The AA prerequisite courses are different for each HP program and are listed in the specific program description in this catalog. A prerequisite course may be attempted a maximum of two (2) times. Any general prerequisite course required for an HP program must be taken prior to acceptance into the program. Additional requirements for admission to each of the HP programs vary and are also listed in the specific program descriptions.

Students enter The University of Montana as AA General Studies majors and select courses from the required prerequisite courses after conferring with an HP advisor. Assessment of writing for placement in writing courses follows University guidelines and is offered during orientation and at various times during the semester. Math placement is determined by a placement test. Placement testing assures that students are enrolled in the appropriate course to ensure success in writing and math studies.

Admission to a health program requires a completed application for the specific program to which the student is applying, with documented completion of the program specific prerequisite courses. For program specific admission requirements and grade point average (GPA) expectations, please refer to the individual program descriptions or contact the specific HP Program Director. Applications can be obtained on the respective HP Program webpage. Students must submit a separate application to each HP program they desire admission to. If a student is accepted to multiple programs, the student can only accept admission to one HP program and must decline admission to the other program(s). Deadlines for applications are April 1 and November 1.

Students provide proof of the following health requirements prior to beginning the clinical portion of HP programs:

1. Tuberculosis testing using the purified protein derivative (PPD) or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings).
2. Hepatitis B vaccine (HBV) for clinical experiences with potential exposure to blood-borne pathogens. A three-injection series is required and may be obtained at Curry Health Center or other health care providers. Students are urged to begin this series as soon as notified of acceptance into an HP program. An acceptable level of hepatitis B immunity must be demonstrated by a post vaccination titer test performed by a medical laboratory.
3. American Heart Association adult, child and infant CPR certification for health care providers.
4. Eye exams are required for surgical technology students due to work with lasers in surgery.
5. Respiratory care students are also required to have a physical exam, a ten-panel drug screen, and a police background check prior to entering clinical experiences.

Many licensing bodies/employing institutions in health care have increasingly stringent requirements and background checks as conditions for licensing or employment. If students have a concern about this they should contact the licensing board for their specialty (contact information may be obtained from appropriate HP Program Director).

Course Fees and Supplies

Most programs in the Health Professions Department include courses with course fees and special supplies requirements. To obtain a complete listing of these additional items and costs, call the College of Technology Admissions Office at 406- 243-7865.

Health Professions AA Prerequisites

The groups of courses are different for each HP program and are listed in the specific program description Some program courses may not be offered in all semesters.

Consult the HP Program Director or Program Advisor regarding which courses to take and when to enroll.

There are other courses which will enhance HP program studies and improve a student's ability to provide quality health care. Students may take these additional courses prior to acceptance to a HP program. Courses should be selected with the assistance of an approved HP program advisor, as taking too many courses may adversely affect financial aid. These courses include, but are not limited to:

- BIOM 250N (BIOL 106N) Microbiology for Health Sciences
- CHMY 121N (CHEM 151N) Introduction to General Chemistry
- CHMY 122N (CHEM 152N) Introduction to General Chemistry Laboratory
- CHMY 124N (CHEM 154N) Introduction to Organic and Biological Chemistry Laboratory
- M 115 (MAT 117) Probability and Linear Mathematics
- M 121 (MAT 118)College Algebra
- AHMS 144 (MED 154T) Medical Terminology
- AHMS 170E (MED 280E) Medical Ethics
- PSYX 100S (PSY 100S)Introduction to Psychology
- PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology
- PSYX 230S (PSY 201) Developmental Psychology (prereq. PSY 100S)
- SCN 150 Nutrition
- SCN 175N Integrated Science
- SCN 220 Human Physiology
- SOCI 101S (SOC 110S)Introduction to Sociology

Medical Assisting-A.A.S. Degree

Students in Medical Assisting are trained in front office administrative skills and back office clinical skills to assist healthcare practitioners in administering to the needs of patients. Students gain skills in scheduling, medical office accounting systems, medical coding and billing, transcription, phone triage and are trained to assist with medical examinations and treatment and to work as a team member in the medical office environment. Students learn to take medical histories and obtain vital signs, give medications and injections (under supervision), draw blood, perform diagnostic tests and office laboratory procedures, sterilize instruments and maintain equipment. Additionally, Medical Assisting students are exposed to the principles of medical ethics and medical legal issues facing health care providers. Students successfully completing the program are awarded the Associate of Applied Science degree..

Students must earn a "C" or better in all courses in order to continue in the program. A course maybe attempted a maximum of two times. As some courses are offered fall or spring semester only, it is important to obtain advising with the Program Director each semester prior to registering for the next semester. Students may apply for either autumn or spring semester program admission.

Upon award of the A.A.S. degree in Medical Assisting, students are eligible to take the Registered Medical Assistant (RMA) national registration exam administered by the American Medical Technologists upon completion of the program. Students are responsible for filing required forms, associated fees, and grade transcripts.

First Year	A	S

ACTG 100 (ACC 131T) Essentials of Accounting	-		4	
BS 140T Customer Service.	4		-	
COM 150S Interpersonal Communications	-		3	
CAPP 120 (CRT 100) Introduction to Computers	3		-	
CAPP 154 (CRT 108) MS Word	-		3	
M 105 Contemporary Math	3		-	
AHMS 144 (MED 154T) Medical Terminology	2		-	
AHMS 191 (MED 195T) Special Topics	-		3	
PSYX 100S (PSY 100S) Introduction to Psychology	4		-	
SCN 201N Anatomy and Physiology	-		4	
WRIT 121 (WTS 115) Introduction to Technical Writing	3		-	
Total	19		17	
Second Year		A		S
AHMS 156 (MED 153T) Medical Billing Fundamentals	3		-	
MED 155T Medical Software Applications	-		1	
AHMA 201 (MED 201T) Med Asst Clinical Procedures I	4		-	
AHMA 298 (MED 202T) Medical Assisting Externship	1		3	
AHMA 203 (MED 203T) Medical Assisting Clinical Products II	-		3	
AHMS 256 (MED 256T) Medical Transcription II	-		3	
AHMS 170E (MED 280E) Medical Law and Ethics	-		3	
PHA 160T Pharmacological Products	3		-	

PSYX 230 (PSY 201) Developmental Psychology	-	3
SCN 202N Anatomy and Physiology	4	
Total	15	16

Pharmacy Technology-Certificate

Mary McHugh, Program Director

In the Pharmacy Technology Program at the University of Montana-College of Technology, students are prepared to function in hospital-based pharmacies and retail pharmacies. The two semesters and wintersession of the program include classroom, lab, and clinical site learning opportunities. Lab and internship hours allow students to integrate their classroom knowledge into the practical setting. Students are required to rotate to clinical sites and some may be outside the Missoula area.

The Pharmacy Technology Program is an Autumn entry only program. Applicants to the Pharmacy Technology program must complete the program specific application packet and achieved required writing, math, and computer skills. Students should place in Level 3 or higher in the ALEKS Math Assessment, and should attain a 7 or better on the E-Write assessment. Students who do not score high enough on assessments should consult with an advisor to arrange enrollment in the necessary courses to build their skills. Students must either complete the Into to Computers (CAPP 120) or pass the challenge for CAPP 120.

Once accepted into the program, all students are expected to complete the PHA classes with a B or higher to proceed to the next semester.

After successfully completing the program, students are awarded a Certificate of Applied Science and are well prepared and encouraged to sit for the national technician certification examination such as that offered through the Pharmacy Technician Certification Board (PTCB). The Pharmacy Technology program is accredited by the American Society of Health System Pharmacists (ASHP).

Conviction of a crime (misdemeanor or felony) could leave an individual ineligible for participation in the certifying test and/or becoming registered in Montana as a certified pharmacy technician. Additionally, the Montana State Board of Pharmacy Application for Pharmacy Technician Registration includes a number of questions regarding personal history, including but not limited to criminal charges. Please contact the PTCB (Pharmacy Technician Certification Board), ptcb.org, and the Montana State Board of Pharmacy (http://mt.gov/kli/bsd/) if this is a potential problem.

Current salary range in Montana is from $9 per hour to $20 per hour, depending on employer, job duties, and experience.

Pharmacy Technology Program Curriculum:

First Year	A	S
PHA 100 Introduction to Pharmacy Practice	3	-

PHA 101 Pharmacy Calculations	3	-
PHA 102 Pharmacology	6	-
PHA 195 Pharmacy Dispensing	3	-
PHA 103T Hospital and Community Practice*	-	6
PHA 105T Internship	-	5
PHA 195 Medication Safety	-	3
Total	15	14

*In order to facilitate access to the laboratory, PHA 103, Hospital and Community Practice, is offered during the January Wintersession. The program director will provide a complete schedule at the beginning of the autumn semester.

Practical Nursing-AAS

Mary Nielsen, Program Director

The College of Technology offers an Associate of Applied Science degree (AAS) in Practical Nursing. Applicants for the PN program must have a high school diploma or equivalency, have completed the AA prerequisite courses with a minimum grade of C, except in SCN 201N and 202N which requires a B or higher grade, and possess a cumulative GPA of at least 2.75.

Admission to the program also requires completion of the application which can be obtained on the UM College of Technology Nursing webpage. Application deadlines are April 1 and November 1. A student may apply while enrolled in the AA prerequisite courses with acceptance to the program to be determined after the currently completed semester grades are finalized.

The 20 students who meet the selection criteria will be accepted into the Nursing program. Applicants must prove computer literacy either by successfully passing a challenge examination, transferring in an equivalent course or passing CAPP 120 (CRT 100).

Students learn practical nursing skills through independent study, lectures, simulation demonstrations, and practice in a nursing skills lab. Under instructor supervision, students also provide patient care in a variety of health care settings. The program is approved by the Montana State Board of Nursing. The program is a candidate for accreditation by the National League of Nursing Accrediting Commission with a site visit scheduled for spring 2011.

Students must provide proof of having met the following health requirements to the Nursing Program Administrative Associate, on or before the first day of class:

1. Tuberculosis testing using the PPD (Purified Protein Derivative) or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings);
2. Hepatitis B vaccine, (HBV, a three injection series that may be obtained at Curry Health Center and other health care providers);

3. Measles, mumps and rubella (MMR) immunization (for those born before 1956 and not required to have an MMR a titer must be completed);
4. Tetanus shot; and
5. CPR training for health care providers.

Many licensing bodies and employing institutions in health care have increasingly stringent requirements and background checks as conditions for licensing or employment. If a student has concerns about this, she/he should contact the licensing board for nursing at dlibsdnur@mt.gov.

Practical Nursing program graduates are eligible to write the National Council Licensing Examination (NCLEX) for Practical Nurses. After licensure, graduates typically find employment in hospitals, nursing homes, physician offices and other health care agencies. They work under the supervision of a registered nurse, physician, dentist, osteopath or other health care provider as specified in the State of Montana Nurse Practice Act.

A.A. Prerequisite Courses

A.A. prerequisite courses must be completed prior to application to the program. An AA prerequisite course may be attempted a maximum of two (2) times.

PN Prerequisites	A/S
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3
CHMY 122N (CHEM 152N) Introduction to General Chemistry Laboratory	1
M 121 (MAT 118) College Algebra (requires a placement test)	3
NUR 105 Math for Heath Professions (Elective)	2
NRSG 100 (NUR 101) Introduction to Nursing	1
PSYX 100S (PSY 100S) Introduction to Psychology	4
SCN 150 Nutrition (Suggested prerequisite is SCN 100N, Issues in Biology)	3
SCN 201N-202N Anatomy and Physiology	8
WRIT 101 (WTS 101) College Writing I (requires a placement test)	3

Students must prove competence with computer technology in one of the following three ways: Acceptable transfer credit for CAPP 120 (CRT 100); Pass the challenge exam for CAPP 120 (CRT 100); Take and pass CAPP 120 (CRT 100).

Students who have begun the PN program under an earlier catalog will have a slightly different course of study. Please see a program advisor for the correct schedule of courses.

Scope and Sequence of the Practical Nursing Program:

First Year Start in Spring		A		S
NRSG 130/131 (NUR 110) Fundamentals of Nursing and Lab	-		7	
NRSG 135 (NUR 125) Nursing Pharmacology	-		3	
NRSG 138 (NUR 146) Gerontology for Nursing	-		2	
NRSG 140/141 (NUR 156) Core Concepts of Adult Nursing and Clinical	7		-	
NRSG 142/143 (NUR 168) Core Concepts of Maternal Child Nursing and Clinical	3		-	
NRSG 144 (NUR155) Core Concepts of Mental Health Nursing	2		-	
NRSG 148/149 (NUR 173) Leadership Issues and Clinical	2		-	
NRSG 147 (NUR 170) Practical Nursing NCLEX Review (elective)	2		-	
Total	16		12	
First Year Start in Autumn		A		S
NRSG 130/131 (NUR 110) Fundamentals of Nursing and Lab	7		-	
NRSG 135 (NUR 125) Nursing Pharmacology	3		-	
NRSG 138/139 (NUR 146) Gerontology	2		-	
NRSG 144 (NUR 155) Core Concepts of Mental Health Nursing	-		2	
NRSG 140/141 (NUR 156) Core Concepts of Adult Nursing and Clinical	-		7	
NRSG 142/143 (NUR 168) Core Concepts of Maternal Child Nursing and Clinical	-		3	
NRSG 148/149 (NUR 173) Leadership Issues and Clinical	-		2	

NRSG 147 (NUR 170) Practical Nursing NCLEX Review (elective)	-	2
Total	12	16

Registered Nursing-Associate of Science Degree

Mary Nielsen, Program Director

The Associate of Science degree program articulates with the PN program and requires at least two additional semesters of full-time study. Applicants must have completed a PN program with the AA prerequisite courses listed in the practical nursing course of study, and have a cumulative GPA of at least 2.75, submit three letters of reference from employers or former instructors, produce a proctored essay and possibly meet with an interview committee prior to being accepted into the A.S. program. The number of students accepted into the A.S. program is limited to 10 each autumn and spring. Application deadlines are April 1 and November 1. All candidates who meet the admission requirements will be considered. The A.S.N. degree program is approved by the State Board of Nursing. The program is a candidate for accreditation by the National League of Nursing Accrediting Commission with a site visit scheduled for spring 2011.

The requirements for all students entering the program are:

1. Tuberculosis testing using the PPD (Purified Protein Derivative) X 2 testing or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings)
2. Hepatitis B vaccine (HBV, a three injection series that may be obtained at Curry Health Center and other health care providers)
3. Measles, mumps and rubella (MMR; for those born before 1956 and not required to have an MMR, a titer must be completed)
4. Tetanus shot, and;
5. CPR training for health care providers

Many licensing bodies and employing institutions in health care have increasingly stringent requirements and background checks as conditions for licensing or employment. If a student has concerns about this, she/he should contact the licensing board for nursing at dlibsdnur@mt.gov.

There is further advanced learning and skill development in the A.S.N. degree program, in lecture, lab and clinical settings. Upon completion, graduates earn an Associate of Science degree in Nursing (ASRN) and are eligible to write the NCLEX for Registered Nurses. Graduates are prepared for employment as registered nurses in acute care facilities, geriatric care centers, industrial setting, and in public and private health care agencies.

Prerequisite courses	A	S
Have completed all PN Prerequisites		

BIOM 250N (BIOL 106N) Microbiology for Health Sciences	3		-
SCN 220 Human Physiology (required if student has not taken SCN 202)	4		–
SOCI 101S (SOC 110S) Introduction to Sociology	-		3
RN First Year Start in Autumn		A	S
NRSG 250 (NUR 240) LPN to RN Transition	3		-
NRSG 252/253 (NUR 268) Complex Care Maternal/Child Client and Clinical	3		-
NRSG 254/255 (NUR 255) Complex Care Mental Health Client and Clinical	2		-
NRSG 256 (NUR 230) Pathophysiology	3		-
NRSG 262/263 (NUR 256) Complex Care Needs - Adult Client and Lab	-		4
NRSG 265 (NUR 270) Advanced Clinical Skills and Lab	-		1
NRSG 266 (NUR 290) Managed Client Care	-		4
Total	11		9
RN First Year Start in Spring		A	S
NRSG 250 (NUR 240) LPN to RN Transition	-		2
NRSG 252/253 (NUR 268) Complex Care Maternal/Child Client and Clinical	-		3
NRSG 254/255 (NUR 255) Complex Care Mental Health Client and Clinical	-		2
NRSG 256 (NUR 230) Pathophysiology	-		3

NRSG 262/263 (NUR 256) Complex Care Needs - Adult Client and Lab	4	-
NRSG 265 (NUR 270) Advanced Clinical Skills and Lab	2	-
NRSG 266 (NUR 290) Managed Client Care	4	-
Total	9	11

Radiologic Technology-A.A.S. Degree

Anne Delaney, Program Director

A Radiologic Technologist uses critical thinking and independent judgment to obtain a diagnostic imaging study while maintaining quality patient care and minimizing radiation exposure. Technologists are employed in acute care settings, ambulatory care settings, physicians' offices, in education, and in management or sales positions. With additional education and training, radiographers may be employed in radiation therapy, computed tomography, mammography, magnetic resonance imaging, diagnostic medical sonography, nuclear medicine, special vascular imaging and cardiac catheterization.

The Associate of Applied Science degree in Radiologic Technology requires students to successfully complete the AA prerequisite courses prior to applying to the program. Students admitted to the University of Montana may enroll in the AA prerequisite courses. Students must pass SCN 201N-202N with a minimum grade of 'B' and have a minimum cumulative GPA of 2.75 in the AA prerequisite courses to apply to the Radiologic Technology program. A course may be attempted a maximum of two times. As some courses are offered autumn or spring semester only, it is important to obtain advising with the Program Director each semester prior to registration. Application to the program is required spring semester the year prior to the autumn semester program start. Students may apply while enrolled in the AA prerequisite courses with acceptance to the program to be determined after spring grades are finalized. The program classes begin autumn semester each year with four semesters consisting of classroom and clinical education. A ten-week summer clinical rotation is required between the first and second years and consists of 40 hour per week of clinical instruction.

Once accepted in the program, all students are expected to complete SCN 202N and all courses with a RAD rubric with a minimum grade of "B" to continue in the program.

The Radiologic Technology program is approved by the American Registry of Radiologic Technologists (ARRT) and accredited by the Northwest Association of Schools and Colleges. When all requirements for the associate degree are completed, the student will be eligible to take the national certification examination administered by the American Registry of Radiologic Technologists. Upon successful completion of this examination, the student becomes a Registered Radiologic Technologist , R.T.(R)ARRT.

Students entering the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations will take place during any term or session of the second year. These sites may include, but are not limited to, Ronan,

Hamilton, and Polson, Montana. Transportation and housing are the student's responsibility.

AA Prerequisite Courses

To be successfully completed prior to application to the program. An AA Prerequisite course may be attempted a maximum of two (2) times:

M 115 (MAT 117) Probability and Linear Math or M 121 (MAT 118)College Algebra	3
SCN 175N Integrated Physical Sciences	3
SCN 201N Anatomy and Physiology	4
WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 101 College Writing	3
Total	13

Students must prove competence with computer technology in one of the following three ways: Acceptable transfer credit for CAPP 120; Pass the challenge exam for CAPP 120; Take and pass CAPP 120.

Radiologic Technology Program Curriculum

First Year	A	S
COM 160A Oral Communications	–	3
PSYX 161S (PSY 110S) Organizational Psychology or PSYX 100S (PSY 100S) Introduction to Psychology	3	–
AHXR 100 (RAD 110) Introduction to Diagnostic Imaging	3	-
AHXR 121 (RAD 121) Radiographic Imaging I	-	4
AHXR 140 (RAD 111) Radiological Methods	3	-
AHXR 195 (RAD 151) Radiographic Clinical: I	-	8
AHXR 240 (RAD 112) Radiological Methods II	-	3
SCN 202N Anatomy and Physiology	4	-
Total	13	18
Summer Session	A	S

AHXR 195 (RAD 161) Radiographic Clinical: II	12			
Total	12			
Second Year		A		S
MED 280E Ethics in Health Professions	-		3	
AHXR 221 (RAD 222) Radiographic Imaging II	3		-	
AHXR 225 (RAD 241) Radiobiology/Radiation Protection	2		-	
AHXR 270 (RAD 245) Radiographic Registry Review	-		2	
AHXR 295 (RAD 251) Radiographic Clinical: III	8		-	
AHXR 295 (RAD 261) Radiographic Clinical: IV	-		9	
Total	13		14	

Respiratory Care-A.A.S. Degree

Nicholas Arthur, Program Director

Shyla Fintom, Director of Clinical Education

Respiratory Care is an allied health specialty. It is an important part of modern medicine and health care. Respiratory Care encompasses the care of patients with respiratory problems in the hospital, clinic, and home.

Respiratory therapists, as members of a team of health care professionals, work to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders in a wide variety of clinical settings. Respiratory therapists must behave in a manner consistent with the standards and ethics of all health care professionals. In addition to performing respiratory care procedures, respiratory therapists are involved in clinical decision-making (such as patient evaluation, treatment selection, and assessment of treatment efficacy) and patient education. The scope of practice for respiratory therapist includes, but is not limited to:

- acquiring and evaluating clinical data;
- assessing the cardiopulmonary status of patients;
- performing and assisting in the performance of prescribed diagnostic studies, such as drawing blood samples, performing blood gas analysis, pulmonary function testing, and applying adequate recording electrodes using polysomnographic techniques;
- utilizing data to assess the appropriateness of prescribed respiratory care;
- establishing therapeutic goals for patients with cardiopulmonary disease;
- participating in the development and modification of respiratory care plans;
- case management of patients with cardiopulmonary and related diseases;

- initiating ordered respiratory care, evaluating and monitoring patients' responses to such care, modifying the prescribed respiratory therapy and cardiopulmonary procedures, and life support endeavors to achieve desired therapeutic objectives;
- initiating and conducting prescribed pulmonary rehabilitation;
- providing patient, family, and community education;
- promoting cardiopulmonary wellness, disease prevention, and disease management;
- participating in life support activities as required; and
- promoting evidence-based medicine, research, and clinical practice guidelines.

Starting salaries are excellent with premiums paid for evening, night, and weekend shifts. Jobs are plentiful throughout the United States. Graduates are eligible to take the credentialing examinations administered by the National Board for Respiratory Care (NBRC) which lead to the Registered Respiratory Therapist (RRT) credential. Licensure requirements in the state of Montana also are met by successful completion of the NBRC Entry Level (CRT) examination.

The goal of the program is, "To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learing domains of respiratory care practice as performed by registered respiratory therapists (RRTs)" CoARC standard 3.01.

The program is 4 ½ semesters in length which includes the AA prerequisite courses and a summer session. The Respiratory Care Program at The University of Montana College of Technology, is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com), 1248 Harwood Road, Bedford, Texas 76021-4244. Graduates receive the degree of Associate of Applied Science in Respiratory Care.

Students accepted to the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations take place during the spring semester, summer session and autumn semester of the second year. These sites may include, but are not limited to: Kalispell, Ronan, Polson, Butte, Billings, Bozeman, Hamilton, Helena, Coeur d'Alene and Lewiston, Idaho and Spokane, Washington. Transportation and housing are the student's responsibility.

Program Admission Requirements

1. Completion of all general health core courses with a minimum 2.75 GPA in the core courses.
2. Minimum grade of B minus in SCN 201N and a minimum grade of C in SCN 202N.
3. Previous health care experience is preferred. Applicants are required to "job shadow" a Respiratory Care practitioner in the workplace. Consult the Respiratory Care Program Director for details.
4. Submit completed application packet to the HP Administrative Assistant by April 1 for autumn entry into the program.

Note: If a student has not completed the general health core courses until the end of summer session, he/she should still apply in spring semester and request a provisional acceptance contingent upon successful completion of general health core courses during the summer session.

AA Prerequisite Courses

To be successfully completed prior to application to the program. An AA prerequisite course may be attempted a maximum of two (2) times.

M 115 (MAT 117) Probability and Linear Mathematics Probability and Linear Math or M 121 (MAT 118)College Algebra	3
PSYX 161S (PSY 110S)Organizational Psychology	3
SCN 201N-202N Anatomy and Physiology	8
WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 101 (WTS 101) College Writing I	3
Total	17

Respiratory Care Program Curriculum

Autumn Entry	A	S
RES 101 Communication and Management	1	-
RES 115 Blood Gas Analysis (wintersession)	-	2
RES 129 Patient Care and Assessment	4	-
RES 130 Respiratory Care Lab 1B	1	-
RES 131 Respiratory Care Fundamentals	5	-
RES 133 Respiratory Care Pharmacology	-	3
RES 150 Respiratory Care Laboratory I	1	-
RES 231 Respiratory Critical Care	-	4
RES 232 Respiratory Pathology and Disease	-	3
RES 235 Cardiopulmonary Anatomy and Physiology	3	-
RES 250 Respiratory Care Laboratory II	-	2
RES 255 Clinical Experience I	-	5
Total	15	19

Summer Session		
RES 260 Respiratory Care Laboratory III	1	
RES 265 Clinical Experience II	6	
Total	7	
Autumn Semester		A
RES 241 Prenatal and Pediatric Respiratory Care	3	
RES 252 Respiratory Care Review	2	
RES 270 Respiratory Care Laboratory IV	2	
RES 275 Clinical Experience III	7	
Total	15	

Surgical Technology-A.A.S. Degree

Debbie Fillmore, Program Director

Students in the program are educated to be Surgical Technologists who work as part of the surgical team to ensure the operative procedure is conducted under optimal conditions. The ST is responsible for three phases (preoperative, intraoperative, and postoperative) of patient care with minimal direction. All surgical team members must adhere to the principles of asepsis and the practice of sterile technique. The ST normally functions in a sterile capacity by passing instruments, equipment and supplies to the surgeon during the surgical procedure but may also perform many non-sterile duties throughout the workday.

Students admitted to The University of Montana enter as Associate of Arts (AA) General Studies majors and select the specific prerequisite courses required for their chosen area of study after meeting with the program advisor.

The Associate of Applied Science Degree (AAS) in Surgical Technology requires students successfully complete, or be in the process of completing, the A.A. prerequisite courses at the time of program application. Students must apply to the ST program by November 1. Students may apply while enrolled in the A.A. prerequisite courses with acceptance to the program to be determined after the Autumn semester grades are finalized. The course, SCN 201N, Anatomy and Physiology I, must be passed with a grade of B (3.0). All other prerequisite courses must be passed with a grade of C (2.0). The program-specific courses begin spring semester.

Once accepted to the program, a student must complete each Surgical Technology-specific course (those courses with a AHST (SUR) prefix) with a minimum grade of ‘C' (80%) in order to continue in the ST program. All other required courses must also be passed with a grade of "C". Course grading scales may vary. If a student does not pass the required courses, he/she will not be able to continue in the program and will need to apply for readmission. If a student is re-admitted, he/she will be

required to complete skills labs, AHST 115 (SUR 102T) and AHST 215 (SUR 202T), to ensure sterile technique skills are acceptable for patient care. A student may take any required course a maximum of two (2) times.

A student will become a member of the Association of Surgical Technologists (www.ast.org) during the first year in the program. A student anticipating program completion will write the National Certification Exam prior to graduation. A student who successfully completes the ST program is awarded an A.A.S. degree in Surgical Technology. The credential of Certified Surgical Technologist (CST) will be awarded to a student upon passing the National Certification Exam and graduation from the ST program. The credential of Certified is awarded by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Students are required to rotate sites during the clinical portion of their education. During the last semester of the program, internships may be outside the Missoula area. Transportation and housing are the student's responsibility. Prior to entering a healthcare facility for clinical experiences, a student will be required to submit a background check. Many healthcare facilities have increasingly stringent requirements. A student could be refused entry into a clinical facility based on information disclosed in a background check. If this is a concern for you, please consult the Program Director.

The University of Montana College of Technology Surgical Technology Program also has Outreach campuses in Butte and Billings. The Butte site is the Montana Tech of The University of Montana College of Technology campus in collaboration with St James Healthcare. The Billings site is the Montana State University-Billings College of Technology campus in collaboration with St Vincent Healthcare and Billings Clinic. Students at those sites take the equivalent A.A .prerequisite courses on their respective campuses. The Surgical Technology-specific courses begin spring semester. Students must apply to the ST program by November 1. Students may apply while enrolled in the A.A. prerequisite courses with acceptance to the program to be determined after fall grades are finalized. The classroom portion of the ST program curriculum is delivered in web-based format using the Blackboard course delivery system from the Missoula campus. Lab and clinical courses are conducted on each Outreach campus. Outreach students are required to travel to Missoula to write the National Certification Exam and to participate in Commencement exercises. Prospective students may contact the Outreach Office at 406-243-7871 for more information regarding the ST Program on the Butte and Billings campuses. Please refer to the specific course catalogs on the Butte and Billings campuses for prerequisite requirements.

The ST program is accredited by the Committee on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park St., Clearwater, FL 33756; phone 727-210-2350, www.caahep.org.

AA Prerequisite Courses

A student may apply to the program either following completion of the AA prerequisite courses or during the semester completing the courses. Any required course may be attempted a maximum of two (2) times.

WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 101 (WTS 101) College Writing I	3

CAPP 120 (CRT 100) Computer Applications	3
M 105 Contemporary Math	3
MED 154T Beginning Medical Terminology	3
PSYX 100S (PSY 100S)Introduction to Psychology	4
SCN 201N Anatomy and Physiology I	4
Total	20

Surgical Technology Program Curriculum:

First Year		A		
BIOM 250N (BIOL 106N) Microbiology for Heath Sciences	-		3	
SCN 202N Anatomy and Physiology II	-		4	
AHST 115 (SUR 102T) Surgical Lab I	-		2	
AHST 154 (SUR 154) Surgical Pharmacology	-		3	
Total	-		15	
Second Year		A		S
AHST 220 (SUR 200) Operating Room Techniques	5		-	
AHST 201 (SUR 201) Surgical Procedures I	4		-	
AHST 215 (SUR 202T) Surgical Lab II	2		-	
AHST 250 (SUR 203T) Surgical Clinical I	4		-	
AHMS 170E (MED 280E) Medical Law and Ethics	3			
AHST 215 (SUR 202T) Surgical Lab II	-		5	
AHST 251 (SUR 206T) Surgical Clinical II	-		5	
AHST 298 (SUR 290T) Surgical Internship	-		5	
Total	18		15	

Please note: Surgical Technology course numbers, titles and rubrics have changed.

Courses

U = for undergraduate credit only. R after the credit indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Allied Health Medical Support (AHMS)

U 144 (MED 265) Medical Terminology

U 170 (SUR 204E) Ethics in Health Professions 3 cr. Offered autumn. Ethical decision-making tools for addressing common ethical issues in the health professions.

Surgical Technology (AHST)

U 101 (SUR 101T) Introduction to Surgical Technology 3 cr. Offered spring. Prereq., admission to the program. Provides an orientation to the scrub and circulatory roles of the surgical technologist in the preoperative, intraoperative and postoperative periods. Entry level skills and theories are emphasized.

U 115 (SUR 102T) Surgical Lab I 2 cr. Offered spring. Prereq., admission to the program. Orientation to the physical organization of the central processing department with emphasis on documentation, sterilization, and preparation of instruments/supplies.

U 154 (SUR 154) Surgical Pharmacology 3 cr. Offered spring. Prereq., admission to the program, M 090 (MAT 005). Basic overview of the medications that are commonly used before, during and after a surgical procedure.

U 164 (SUR 164) Microbiology for the Surgical Technologist 3 cr. Offered spring. Prereq., admission to the program basics of microbiology and techniques for prevention and control of disease before, during, and after surgery.

U 191 (SUR 195) Special Topics Variable cr.

U 200 (SUR 200) Operating Room Techniques 5 cr. Offered autumn. Prereq., completion of all second semester courses. Focus on the scrub and circulator roles of the surgical technologist in the preoperative, intraoperative, and postoperative periods. More complex skills and theories; impact of new technologies in the 21 century st operating room.

U 201 (SUR 201) Surgical Procedures I 4 cr. Offered autumn. Prereq., completion of all second semester courses. A study of surgical procedures following the patient through the preoperative, intraoperative, and post-operative stages of specific surgical specialties.

U 202 (SUR 205) Surgical Procedures II 5 cr.

U 215 (SUR 202) Surgical Lab II 5 cr. Offered spring. Prereq., completion of all third semester courses. A study of surgical procedures following the patient through the preoperative, intraoperative, and postoperative stages of CV/thoracic, orthopedic, neurological, and ophthalmic specialties.

U 250 (SUR 203) Surgical ClinicaI 4 cr. Offered autumn. Prereq., completion of all second semester courses and successful completion of AHST 215 (SUR 202T). Perioperative experience in the minor surgical procedure role through a supervised clinical hospital rotation.

U 251 (SUR 206) Surgical Clinical II 5 cr. Offered spring. Prereq., completion of all third semester courses. Perioperative experience in the major surgical procedure role through a supervised clinical hospital rotation.

U 298 (SUR 290) Surgical Internship 5 cr. Offered spring. Prereq., completion of all third semester courses, SUR 205T, SUR 206T. Capstone experience in the perioperative role in preparation for initial employment, increasing occupational awareness and professionalism. Students take call for emergency surgeries alongside experienced hospital staff.

Radiologic Technology (AHXR)

U 100 (RAD 110) Introduction to Diagnostic Imaging 3 cr. Offered fall. Introduction to the field of radiology and its mix of technical equipment, lab work, hospital environment, patient care and team work.

U 121 (RAD 121) Radiographic Imaging I 4 cr. Offered spring. Introduction to fundamental physics principles underlying radiology and diagnostic ex-ray production. Topics include electromagnetic waves, electricity and magnetism, electrical energy, and power and circuits as they relate to radiography. Factors of image quality and exposure methods: density, contrast, recorded detail, distortion, technique charts, manual and automatic exposure control, and tube rating charts.

U 140 (RAD 111) Radiographic Methods 3 cr. Offered fall. Preparation in the procedures associated with radiology in standard radiographic environments.

U 191 (RAD 195) Special Topics Variable cr.

U 192 (RAD 196) Independent Study Variable cr.

U 195 (RAD 151/161) Radiographic Clinical: I & II 8 cr. Offered spring. Introduction to patient management and basic radiographic procedures in the clinical setting. Emphasis on mastering positioning of the chest and extremities, manipulating equipment, and applying principle of ALARA.

U 221 (RAD 222) Radiographic Imaging II 3 cr. Offered autumn. Offers students more technical and detailed information on the use of image receptor systems, processing principles, advanced digital imaging systems and imaging modalities used in radiology.

U 225 (RAD 241) Radiobiology/Radiation Protection 2 cr. Offered autumn. Principles of radiation protection and radio biology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices.

U 240 (RAD 112) Radiographic Methods II 3 cr. Offered spring. Knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis on radiographic specialty procedures, pathology, and advanced imaging.

U 270 (RAD 245) Radiographic Registry Review 2 cr. Offered spring. An overview of imaging concepts as a review for the national boards. Topics include a systematic approach for image evaluation, patient care, radiation protection and the physics of radiographic imaging.

U 291 (RAD 291) Special Topics Variable Credit

U 295 (RAD 251/261) Radiographic Clinical: III & IV 8 cr. Offered autumn. Experience in patient management specific to fluoroscopic and advanced radiographic procedures.

Emphasis on applying appropriate technical factors to all studies and positioning of gastrointestinal and urological studies.

U 298 (290T) Internship

Nursing (NRSG)

U 100 (NUR 101) Introduction to Nursing 1 cr. Offered each semester. This online course is a prerequisite to the Practical Nursing program. Student will be presented with an introductory level of the core concepts of nursing practice and other issues such as the legal concerns and ethical/cultural issues that face professional nurses on a consistent basis.

U 130 (NUR 110) Fundamentals of Nursing 7 cr. Offered autumn and spring. Prereq: acceptance into the Practical Nursing Program. Introduces learners to the clinical skills essential for the nursing role. Also includes complex concepts and behaviors of nursing roles within the context of the nursing process, holistic care and health care. Emphasizes the theoretical and practical concepts of nursing skills required to meet the needs of clients in a variety of settings.

U 131 (NUR 103) Funadmentals of Nursing Lab 3 cr. Offered autumn and spring. Prereq., SCN 201N-202N, M 115 (MAT 117), WRT 101 (WTS 101), SCN 150N, PSYX 100S (PSY 100S), CHMY 121N (CHEM 151) with lab, and acceptance into the practical nursing program. Introduces the student to basic principles and psychomotor skills to provide a framework for developing initial competencies in patient care. Campus lab experience is used initially. Off campus clinical experience in a long term care setting completes the hands on portion. Successful students are qualified to apply for certification as certified nurse assistants.

U 135 (NUR 125) Nursing Pharmacology 3 cr. Offered autumn and spring. Prereq: acceptance into the Practical Nursing Program. Students learn a structured systematic approach to the study of drug therapy through caring, communication, professionalism, critical thinking, and clinical judgment. Medications are studied according to drug classes, and therapeutic families. Students will learn to apply the nursing process to drug therapy with an emphasis on accessing relevant information to ensure client safety.

U 138 (NUR 146) Gerontology for Nursing 2 cr. Offered autumn and spring. Prereq: acceptance into the Practical Nursing Program. Introduces the student to the skills and knowledge needed to provide nursing care to aging clients. Topics explored include current trends (including legal and ethical issues) in gerontological nursing, developmental stages and transitions associated with aging, expected age-related physiological changes, and assessment findings, recognition and management of acute and chronic illness that commonly occur in the older adult population, promotion of health for the older adult client, end-of-life issues and care.

U 139 (NUR 146) Gerontology for Nursing Clinical 2 cr. Offered autumn and spring. Prereq., acceptance into the Practical Nursing Program. Introduces the student to the skills and knowledge needed to provide nursing care to aging clients. Topics explored include current trends (including legal and ethical issues) in gerontological nursing, developmental stages and transitions associated with aging, expected age-related physiological changes, and assessment findings, recognition and management of acute and chronic illness that commonly occur in the older adult population, promotion of health for the older adult client, end-of-life issues and care.

U 140 (NUR 156) Core Concepts of Adult Nursing 7 cr. Offered spring and autumn. Prereq: successful completion of semester 1 of the PN nursing program. Prepares the student to care for clients experiencing common, well-defined health alterations in settings where stable clients are anticipated. Students are introduced to standardized nursing procedures and customary nursing and collaborative therapeutic modalities.

U 141 (NUR 156) Core Concepts of Adult Nursing Clinical 7 cr.Offered spring and autumn. Prereq., successful completion of semester 1 of the PN nursing program. Prepares the student to care for clients experiencing common, well-defined health alterations in settings where stable clients are anticipipated. Students are introduced to standardized nursing procedures and customary nursing and collaborative therapeutic modalities.

U 142 (NUR 168) Core Concepts of Maternal/Child Nursing 3 cr. Offered autumn and spring. Prereq: successful completion of semester 1 of the PN nursing program. Information about fetal development and prenatal and postnatal care of the mother and newborn emphasizing caring, communication, professionalism, and critical thinking. Role of the nurse in meeting the needs of the family is emphasized. Clinical application of caring for the mother and newborn will allow the student to demonstrate acquired knowledge.

U 143 (NUR 160) Core Concepts Maternal Child Nursing Clinical 3 cr. Offered intermittently. Prereq: all first semester practical nursing courses and consent of instr. Capstone course that allows the student to work collaboratively with an identified LPN preceptor, performing the role expectations for care in that workplace setting.

U 144 (NUR 155) Core Concepts of Mental Health Nursing 2 cr. Offered autumn and spring. Prereq: successful completion of semester 1 of the PN nursing program. Exploration of physiological, psychological, sociocultural, spiritual, and environmental factors associated with mental health/illness affecting individuals and families. Focus will be placed on basic concepts of psychiatric nursing, therapeutic modalities, as well as psychiatric disorders including psychopharmacological management.

U 147 (NUR 170) Practical Nursing NCLEX Review 2 cr. Offered autumn and spring. Prereq: Successful completion of all courses in the first semester of the practical nursing program. Preparation for the national test for LPN licensure.

U 148 (NUR 173) Leadership Issues 2 cr. Offered autumn and spring. Prereq: successful completion of semester 1 of the PN nursing program. Capstone course that provides the Practical Nursing student information regarding the current status of vocational nursing. There is a forty-five hour clinical/precepted component to provide the student opportunity to apply theoretical knowledge in the long-term care setting.

U 149 (NUR 173) Leadership Issues Clinical 2 cr. Offered autumn and spring. Prereq., successful completion of semester 1 of the PN nursing program. Capstone course that provides the Practical Nursing student information regarding the current status of vocational nursing. There is a forty-five hour clinical/precepted component to provide the student opportunity to apply theoretical knowledge in the long-term care setting.

U 191 (NUR 195)Special Topics Variable cr. (R-6)

U 192 (NUR 196T) Independent Study 1-6 cr. (R-6) Offered intermittently.

U 250 (NUR 240) LPN to RN Transition 2 cr. Offered autumn and spring. Prereq., admission to the registered nursing program and current unencumbered LPN license. Focus on the role transition from LPN to RN in relation to the concepts and

principles of holistic nursing care. Focus is on the continuing development of roles and responsibilities of the RN as defined by the scope of practice standards, nursing theory and conceptual models.

U 252 (NUR 268) Complex Care Maternal/Child Client 3 cr. Offered spring and autumn semester. Prepares the student to provide care to maternal/child clients experiencing acutely changing conditions in settings where outcomes are less predictable. Topics include care of the client during childbirth, high-risk pregnancies, obstetrical emergencies, neonatal emergencies, and infants and children requiring complex collaborative care.

U 253 (NUR 268) Comples Care Maternal/Child Client Clinical

U 254 (NUR 255) Complex Care Mental Health Client 2 cr. Offered spring and autumn. Explores physiological, psychological, sociocultural, spiritual and environmental factors associated with mental health/illness. Focus is placed on psychotherapeutic management in the continuum of care, milieu management and special populations with emphasis on individuals, families and communities.

U 255 (NUR 255) Complex Care Mental Health Client Clinical

U 256 (NUR 230) Pathophysiology 3 cr. Offered spring and autumn. Prereq: successful acceptance into the ASRN Nursing Program. An introduction to the basic principles and processes of pathophysiology including cellular communication, genes and genetic disease, forms of cellular injury, fluid and electrolyte/acid base balance, immunity, stress coping and illness, and tumor biology. Pathophysiology of the most common alterations according to body system will also be discussed as well as the latest developments in research related to each area.

U 262 (NUR 256) Complex Care Needs - Adult Client 4 cr. Offered spring and autumn. Prepares the student to provide nursing care to adult client's experience acutely changing conditions in setting where outcome is less predictable. Emphasis is placed on the nurse's repsonse to emergent/life-threatening/rapidly changing conditions. Topics covered include collaborative therapeutic modalities related to acute/complex neurological, cardiac, respiratory, hematological, endocrinologic events, shock, sepsis/SARS, complex burns, etc.

U 263 (NUR 256) Complex Care Needs - Adult Client Lab

U 265 (NUR 270) Advanced Clinical Skills 1 cr. Offered spring and autumn. Prepares students to carry out complex nursing interventions. Topics covered include central venous therapy, parenteral nutrition hemodynamic monitoring, advanced airway/ventilator support, intracranial pressure monitoring, IV medication administration, high risk IV infusions, blood/blood product administration, conscious sedation, advanced wound care, etc.

U 266 (NUR 290) Managed Client Care 4 cr. Offered spring and autumn. Covers topics related to inegrated nursing care of individual clients and groups as well as basic principles related to suprevision of nursing practice and management of resources.

U 267 (NUR 290) Managed Client Care Clinical

U 291 (NUR 295T) Special Topics Variable cr.

U 292 (NUR 296T) Independent Study Variable cr. (R-6)

Nursing (NUR)

U 105 Prenursing - Medical Calculations for Health Professions

Pharmacy Technology (PHA)

U 100 Introduction to Pharmacy Practice 3 cr. Offered autumn. Introduction to pharmacy practice as a career. Includes history and personnel relating to pharmaceutical services and ethical standards of the occupation. Introduction to federal and state laws regulating pharmacy practice with emphasis on Montana State Pharmacy Law regulating pharmacy technicians. Preparation, maintenance, and storage of pharmacy records. Basic concepts of computer operations with emphasis on software designed for use in pharmacy. Development of skills necessary for the pharmacy technician to communicate effectively in the following ways: 1) as a representative of the profession of pharmacy, 2) as an intermediary between the pharmacist and patient, and 3) as an intermediary between the pharmacist and other health care professionals.

U 101 Pharmacy Calculations 3 cr. Offered autumn. Calculations used in pharmacy practice; includes various systems of weights and measures, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution, and concentration.

U 102 Pharmacology 6 cr. Offered autumn. Prereq., admission into Pharmacy Technology program. Study of the properties, reactions, and therapeutic value of the primary agents in the major drug classes.

U 103 Hospital and Community Practice 6 cr. Offered spring. Prereq., PHA 100T, PHA 101T. Practices in hospital and community pharmacy settings. In addition to lectures, students receive hands-on experience in dispensing prescriptions, computer order entry, labeling, patient profiles, non-sterile compounding, and sterile IV admixture preparation. Guest speakers and video presentations supplement lectures and skills practice. Good communication skills are emphasized.

U 106 Pharmacy Technology Retail Internship 3 cr. Offered spring. Prereq., PHA 100, 101, 102, 103 and second semester standing in Pharmacy Technology Program. Training and experience in retail pharmacy settings under supervision of a pharmacist. Emphasizes practical experience in outpatient dispensing.

U 107 Pharmacy Technology Alternative Internship 3 cr. Offered spring. Prereq., PHA 100, 101, 102, 103 and second semester standing in Pharmacy Technology Program. Training and experience in either hospital, compounding, home infusion, nursing home or other alternative pharmacy settings under supervision of a pharmacist. Emphasizes special skills unique to that pharmacy setting.

U 110 Medication Safety 3 cr. Offered spring online only. Prereq., PHA 100, 101, 102, 103 and second semester standing in Pharmacy Technology Program. This course will introduce students to national safety initiatives developed by the Institute of Medicine, The Joint Commission, The Institute of Safe Medicine Practices and others. This awareness will help students become part of the solution in promoting safe medication practices.

U 160 Survey of Pharmaceutical Products 3 cr. Offered autumn. Fundamental principles of pharmacology and the implications of medication use. Includes the law as it pertins to drug use, dosage forms, routes of administration as well as the pharmacologic actions and uses of drugs.

U 195 Special Topics 1-6 cr. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 196 Independent Study 1-6 cr. (R-6) Offered intermittently.

Respiratory Care (RES)

U 101 Communication And Management 1 cr. Offered autumn. Prereq., Acceptance into Respiratory Care Program. Study of respiratory care departmental organization and administration procedures, effective communication strategies, and legal and ethical issues for the Respiratory care professional.

U 115 Blood Gas Analysis 2 cr. Offered autumn. Prereq., acceptance into the Respiratory Care program. Study of the indications, rational, methods, instrumentation, and analysis of Blood Gases. Emphasis will be placed on the physiology and clinical implications of acid-base abnormalities.

U 129 Patient Care and Assessment 4 cr. Offered autumn. Prereq., SCN 201N-202N. Introduction to nursing- related knowledge and skills with emphasis on application of microbiology to aseptic technique. Assessment of the respiratory system with cardiopulmonary diagnostic and laboratory tests interpretation. Observation and interpretation of overall patient condition is integrated throughout the course.

U 130 Respiratory Care Laboratory IB 1 cr. Offered autumn. Prereq., acceptance into the Respiratory Care program. Basic clinical competencies taught in RES 129 are studied in a laboratory setting. Peer and instructor review of competencies included. Students focus on patient assessment skills and techniques/equipment.

U 131 Respiratory Care Fundamentals 5 cr. Offered autumn. Prereq., acceptance into the Respiratory Care program. Orientation to basic respiratory care science including the application of principles of physics and chemistry. Emphasis on theory, operation and troubleshooting of equipment used at the entry level of practice. Microbiology in relation to equipment processing, pulmonary rehabilitation and home care included.

U 133 Respiratory Care Pharmacology 3 cr. Offered autumn. Prereq., acceptance into the Respiratory Care Program or consent of instr. Principles of basic chemistry introduced with an application to pharmacology as related to the pulmonary system. Cardiovascular and related pharmacology studied in preparation for ACLS and ventilator management.

U 150 Respiratory Care Laboratory I 1 cr. Offered autumn. Prereq., acceptance into the Respiratory Care program. Basic clinical competencies taught in RES 131 are studied in a laboratory setting. Peer and instructor review of competencies included. Students earn their BLS certification.

U 231 Respiratory Critical Care 4 cr. Offered spring. Prereq., RES 120, 129, 131, 133, 150. Continuation of RES 131. Physiology, indication, contraindications, and application of mechanical ventilation. Emphasis on patient assessment, monitoring, stabilization and weaning during assisted pressure breathing. Analysis of the various modes of ventilation, including optimizing the patient-ventilator interface in the adult through various advanced airway techniques.

U 232 Respiratory Pathology and Disease 3 cr. Offered spring. Prereq., RES 120, 129, 131, 133, 150. Special lectures in medicine and disease as related to the cardiopulmonary system. Emphasis on recognition of signs and symptoms of disease and implications for treatment through the study of selected case studies.

U 235 Cardiopulmonary Anatomy and Physiology 3 cr. Offered spring. Prereq., RES 120, 129, 131, 133, 150 or consent of instr. Principles of physiologic chemistry are introduced and applied to the macro and micro anatomy of the cardiopulmonary system

with a focus on structure and function. Application made to pathology and assessment of patients receiving mechanical ventilation.

U 241 Perinatal and Pediatric Respiratory Care 3 cr. Offered autumn. Prereq., RES 260, 265. Study of perinatal and pediatric respiratory care with emphasis on assessment, resuscitation and mechanical ventilation of the neonate and pediatric patient. The theory of Neonatal Resuscitations (NRP) will be presented. Neonatal and pediatric diseases will be studied.

U 250 Respiratory Care Laboratory II 2 cr. Offered spring. Prereq., RES 120, 129, 131, 133, 150. A continuation of RES 150 with emphasis on adult critical care. Clinical competencies taught in RES 231 and RES 235 are studied in a laboratory setting. Peer and instructor review of competencies included.

U 252 Respiratory Care Review 2 cr. Offered autumn. Prereq., RES 260, 265. A review of respiratory care in preparation for credentialing exams. Students must take an Entry Level Self-Assessment Exam, a Written Registry Self- Assessment Exam, and a Clinical Simulation Self-Assessment Exam.

U 255 Clinical Experience I 5 cr. Offered spring. Prereq., RES 120, 129, 131, 133, 150. Emphasis on the student directly performing basic clinical skills in a patient care setting to include hospitals, home care, and pulmonary function laboratories. Students also participate in physician rounds.

U 260 Respiratory Care Laboratory III 1 cr. Offered summer. Prereq., RES 231, 232, 235, 250, 255. Students study principles and theory of advanced life support. Peer and instructor review are included. Students will be Advanced Cardiac Life Support (ACLS) and Pediatric Advance Life Support (PALS) certified at the end of this class.

U 265 Clinical Experience II 6 cr. Offered summer. Prereq., RES 231, 232, 235, 250, 255. Continuation of clinical skills learned in RES 255. Introduction to adult critical care along with sleep and cardiac diagnostics. Students also participate in physician rounds.

U 270 Respiratory Care Laboratory IV 2 cr. Offered autumn. Prereq., RES 260, 265. Emphasis on neonatal and pediatric critical care. Clinical competencies introduced in RES 241 are studied. Peer and instructor review of competencies are included.

U 275 Clinical Experience III 7 cr. Offered autumn. Prereq., RES 260, 265, 270. Continuation of RES 265 with critical care of the adult. Neonatal and pediatric critical care experiences are emphasized. Students also participate in physician rounds.

U 295 Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.