

#### G. Concentration in Physics

A minor in physics.

#### H. Concentration in Operations Research \*

BA 409	Operations Research
CS 110 I	Intro. to Computer Science
CS 120	Data Structures
CS 310	Database Design and Implementation I
CS 311	Database Design and Implementation II
EC 201	Principles of Economics I
EC 202	Principles of Economics II

Recommended: CS 230 Software Engineering

To earn a Bachelor of Arts degree with a major in mathematics, a student must earn a grade of “C” or better in all of the courses listed under “Major Program Requirements,” “Required Cognate Concentration or Minor,” and “Other Program Requirements.” A lesser grade in any of these courses must be replaced before the Bachelor of Arts degree with a major in mathematics will be granted. In addition, lesser grades in any of these courses preclude taking subsequent courses for which the deficient courses are prerequisite.

\*Pending Approval

### Major in Mathematics for Secondary Education

#### I. Broadfield Major Program Requirements

MA 131	Calculus of Single Variable Functions or MA 121-122 Differential and Integral Calculus
MA 232	Differential Equations and Linear Algebra I
MA 233	Multivariable Calculus
MA 301	Foundations of Mathematics
MA 328	Modern Applications of Discrete Mathematics
MA 334	Differential Equations and Linear Algebra II
MA 336	Probability and Statistics I
MA 341	Probability and Statistics II
MA 342	Numerical Computing and Visualization
MA 401	Abstract Algebra and Modern Geometry
MA 421	Optimization
MA 471	History Seminar in Mathematics
MA 4xx	Honors Thesis/Senior Project (for a total of at least 3 credits)

#### II. Other Program Requirements

Two semesters of college science approved by the mathematics department.

One English writing course above ENWR 102

#### III. Professional Education Requirements

AN/SO 218	Introduction to Native American Studies
ED 102	Foundations of Education
ED 205	Classroom Management
ED/PSY 229	Educational Psychology
ED 245	Diversity Field Experience
ED 318	Content Area Reading and Secondary Methods
ED 405	Education Seminar
ED 410	Student Teaching
ED 412	Measurement & Assessment in Teaching
ED 418	Teaching Mathematics in the Secondary School
HPE 214	The School Health Program
PSY 228	Adolescent Psychology
SPED 300	Introduction to Exceptional Children

United States and contemporary world cultures course(s) see index for page number.

#### IV. Acceptance into the Teacher Education Program and the Student Teaching Program

- Teacher Education Program: Students pursuing academic programs that lead to teacher licensure must be accepted into the teacher education program by the end of their sophomore year.
- Student Teaching Program: All preservice teachers must obtain admission to the student teaching program in the spring semester of their junior year. For details see index for page numbers for Teacher Education and Student Teaching Programs.

Note: All secondary education students must consult both with the Department of Education: Health, Physical, and Teacher and the Department of Mathematics, Engineering, and Computer Science.

### Minor in Mathematics

#### Minor Program Requirements

MA 131	Calculus of Single Variable Functions or MA 121-122 Differential and Integral Calculus
MA 232	Calculus, Linear Algebra, and Differential Equations
MA 233	Multivariable Calculus
MA 334	Differential Equations and Linear Algebra
MA 336	Probability and Statistics I

Plus two more 3- or 4-credit mathematics courses at the 300 level or above approved by the mathematics program director.

### NURSING

MARIA BROSNAN, RN, MSN, ACNP-BC  
JENNIFER ELISON, RN, EdD, PMHCNS-BC  
KIM GARRISON, RN, MN  
DONNA GREENWOOD, RN, MSN  
JONI WALTON, RN, PHD, ACNS-BC, RRT  
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#### Mission

Inspired by the mission of our College, we are dedicated to preparing professional nurses who promote excellence in holistic care. As community leaders, they are critical thinkers, change agents, compassionate and skilled caregivers, as well as lifelong learners. Our graduates serve Montana, our region and the world.

#### Goals

The Department of Nursing prepares its graduates to enter into the practice of professional nursing with a framework of knowledge integrated from the sciences, arts and humanities. Emphasis is placed on the delivery of holistic nursing care which recognizes the dignity and uniqueness of every person. Completion of the major provides the foundation for life-long learning and graduate study in nursing.

The Faculty of the Department of Nursing seeks distinction in teaching, nursing scholarship and clinical expertise, for planning, directing and evaluating the curriculum.

#### Expected Outcomes

A graduate of the Department of Nursing will pass the NCLEX-RN licensure examination and enter into the profession of nursing with the following abilities:

- Integrate knowledge from the sciences, arts and humanities into nursing practice.
- Utilize the nursing process to deliver holistic human care to individuals, families and communities.
- Utilize knowledge and skills to practice independently and collaboratively with other disciplines in diverse settings.
- Integrate moral, ethical and legal principles into nursing practice.

5. Demonstrate excellence in communication.
6. Utilize theory, research and evidence-based practice to optimize health and well-being.
7. Assume personal accountability for upholding the standards of nursing practice.
8. Influence changing social, political, economic and environmental factors that affect nursing and the health care system.
9. Assume responsibility for personal and professional development.

### Major in Nursing

The nursing program at Carroll College offers a Bachelor of Arts degree with a major in nursing, preparing students to practice as professional nurses or for graduate studies in nursing. Upon graduation, students are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The nursing program is accredited by the Commission on Collegiate Nursing Education and is approved by the Montana State Board of Nursing.

Students may enter into courses prerequisite to nursing as a major program of study upon admission to the college, but need to be formally accepted to the nursing major for registration in nursing courses.

### Admission to the Nursing Major

Applications for Admission to the nursing major are available from the Department of Nursing and are due February 15<sup>th</sup> each year for admission into the major the following Fall semester. Students seeking admission into the nursing major must meet the following criteria to be eligible to make application to the Department of Nursing:

1. Complete or be enrolled in the following pre-requisites with a "C" or better at the time of application: BI 201, BI 202, CH 111, CO 101, ENWR 102, PSY 105, PSY 203
2. Have an overall college career Grade Point Average of 2.75 or higher on a 4-point scale. (This includes all attempted credits at an accredited college or university.)
3. A student can repeat or withdraw from no more than 2 courses considered pre-requisite to nursing or nursing courses taken either at Carroll or other institutions.
4. Complete background check as instructed by Department of Nursing. Students with background checks that reveal a record will be evaluated individually to determine whether they will be admitted to the nursing major.
5. Must have at least 30 credits (sophomore standing) prior to beginning 200-level nursing courses.

The Department of Nursing reserves the right to accept for admission into the major the number of students for whom a quality educational program can be provided. If there are more applications than spaces available, the Department will use a priority ranking system based on the following criteria to select students for admission.

1. Those students whose post high school academic credits were completed at Carroll will have highest priority over students with any transfer credits.
2. Selected GPA for the following Carroll courses: BI 201, BI 202, CH 111, CO 101, ENWR 102, PSY 105. A course from another institution must be accepted at Carroll as an equivalent course to be calculated in this selected GPA.
3. Interviews by the Department of Nursing faculty.
4. Student essay administered by the Department of Nursing.

### Progression in the Nursing Major:

To progress in the nursing major, the student must:

1. Have a grade of "C" or better in all nursing courses and the following co-requisites: BI 214, CH 112, MA 207, PHIL 107 or PHIL 208, SO 101.

2. Maintain a CUM Carroll GPA of 2.75 at the end of each semester after admission into the nursing major.
3. Pass/Fail grades may be acceptable for courses not co-requisite to nursing courses as long as the student is within the parameters of the guidelines of the Academic Policies as stated in the Carroll College Catalog currently in effect. Nursing courses, other than those designated by the Department, cannot be taken pass/fail.

If a student does not meet the above criteria, he or she is not eligible to continue in the nursing major. \*Students may petition the Department of Nursing for exceptions to the above criteria if there are extenuating circumstances.

### Access to Clinical Experiences

Clinical experience begins in the 200-level nursing courses and occurs in diverse community settings, varying from Helena's hospitals to public health, assisted-living, long-term care, home-visits, and psychiatric and school settings. Each nursing course at Carroll provides quality, personalized learning experiences.

Students are expected to purchase uniforms, lab coats, name tags, and other items needed for clinical experience. Prior to beginning 200-level courses, nursing students must show proof of freedom from communicable tuberculosis and immunity to hepatitis B, poliomyelitis, varicella, rubeola, rubella and mumps. Students must also show proof of current CPR, including two-rescuer and use of masks and AED. Students must update TB test and CPR certification annually.

Professional nursing is regulated in Montana by the Board of Nursing to protect the health, safety, and welfare of the public. As part of their educational program, student nurses are entrusted with the responsibility of providing certain kinds of nursing care to clients/patients. It is the responsibility of the faculty to determine that the student nurse has demonstrated reasonable competence to render nursing interventions without risk to the client/patient. If the faculty member's evaluation of the student nurse's behavior or health status indicates that he or she is likely to provide unsafe nursing care, the faculty member has the legal responsibility to deny the student nurse access to clinical learning experience. Professional liability insurance coverage is required for students engaged in clinical experiences and is included in registration fees.

### Student Criminal Background Checks

**POLICY:** The Department of Nursing requires submission of a criminal background check for all nursing students as part of the application to the nursing major and prior to entering 200-level nursing courses and placement in any clinical setting. Background checks are done at the student's expense. Students with criminal background checks that reveal a record will be evaluated individually to determine whether they will be admitted to the nursing major.

**RATIONALE:** To promote patient safety and decrease institutional liability, many clinical agencies require students to have cleared a criminal background check before they will permit the students in the clinical setting. To meet these requirements, the Department of Nursing requires that the check be done as part of the nursing major admission process and prior to placement in any clinical agency.

### PROCEDURE:

- 1) Prospective students will be informed in college publications, web information and the nursing major application that a criminal background check will be required prior to beginning any clinical coursework. Information will also be provided regarding where students can obtain the necessary background check.
- 2) The background check will include statewide criminal records and residency history, as these are currently required by clinical agencies.

3) At the discretion of the department, additional checks may be requested. Any additional checks that may be required will be done at the student's expense.

4) Students whose criminal background check reveals a record will be reviewed individually by the Department of Nursing to determine eligibility for placement. No student will be enrolled in a clinical nursing course with an unacceptable record revealed during the background check.

### CCSNA

The Carroll College Student Nurses' Association is the college chapter for the state and national Student Nurses' Association. CCSNA brings students together to help further the growth of nursing, providing opportunities for education, experience, service and fellowship.

### Sigma Theta Tau International (STTI)

STTI is the Honor Society of Nursing, whose vision is to create a global community of nurses who lead using scholarship, knowledge and technology to improve the health of the world's people. Nursing programs at Carroll College and the Montana State University College of Nursing form the STTI chapter for Montana, called Zeta Upsilon. Membership is by invitation to nursing students in the fall of their senior year who demonstrate excellence in scholarship, and to nurse leaders exhibiting exceptional achievements in nursing. An annual induction ceremony is held at either Carroll College or MSU-Bozeman.

### Four-Year Curriculum Plan

#### Freshman

##### Fall Semester

BI 201	Anatomy & Physiology + Lab	4
LAS 101	Alpha Seminar	3
PSY 105	General Psychology	3

##### Spring Semester

BI 202	Anatomy & Physiology + Lab	4
CH 111	Essentials of Chemistry + Lab	4
PSY 203	Developmental Psychology (or fall semester of sophomore year)	3

Required courses for Freshman Year, may be taken Fall or Spring:

ENWR 102	College Composition	4
CO 101	Basic Communication	3
TH 101	Theological Foundations	3

\*Must have at least 30 credits (sophomore standing) prior to beginning 200-level nursing courses

#### Sophomore

##### Fall Semester

CH 112	Organic and Biochemistry	3
SO 101	Intro to Sociology	3
NU 201	Fundamentals & Health Promotion +Lab	4
NU 202	Assessment & Health Promotion + Lab	4

##### Spring Semester

BI 214	Microbiology	4
NU 301	Care of the Family	4
or NU 302	Psychosocial Health	4
NU 208	Nutrition	3
PHIL 107	Ethics	3
or PHIL 208	Bioethics	(3)
+CORE		3

#### Junior

##### Fall Semester

NU 301	Care of the Family	4
or NU302	Psychosocial Health	(4)
NU 308	Pathophysiology & Pharmacology	3
MA 207	Statistics	3
+CORE		3
+CORE		3

##### Spring Semester

NU 304	Illness Across the Lifespan I	4
NU 305	Clinical Nursing Care I	4
NU 307	Nursing Research (WI)	3
+CORE		3
+CORE		3

#### Senior

NU 404	Illness Across the Lifespan II	4
NU 413	Clinical Nursing Care II	4
*NU 406	Nursing Leadership and Management	4
NU 414	Community Health Nursing (ND)	4
NU 417	Capstone Clinical	3
NU 427	Comprehensive Nursing Review	3
NU 430	Cardiac Nursing (elective)	1
+CORE		3

Total Credits=123

+ CORE – One course needed in each of the following areas: Fine Arts, History, Literature, Philosophy (in addition to PHIL 107 or PHIL 208), and Theology (in addition to TH 101). Of these courses, will need one course designated as Global Diversity and one course designated as Writing Intensive outside the nursing major—may need to take these requirements as CORE to make sure there are 122 credits to graduate or take at least 3 elective credits.

WI - Writing Intensive Course for the major

ND - National Diversity Course

(Students will need to purchase lab coat, scrubs, nametag and stethoscope in NU 201/202)

### PHILOSOPHY

BARRY J. FERST, PH.D.  
RICHARD T. LAMBERT, PH.D.  
ELVIRA RONCALLI, PH.D.  
WILLIAM MARK SMILLIE, PH.D.

#### Mission

The Department of Philosophy offers a selection of courses that provide the intellectual tools for discussing and pursuing the ultimate truth and ultimate good, the core mission of Catholic liberal arts college education.

#### Goals

The major in Philosophy acknowledges three goals for its program of study:

1. Introduce students to the discussion of the ultimate truth and ultimate good;
2. Familiarize students with major philosophical issues and thinkers; and,
3. Prepare majors, minors and others for graduate study in such professional fields as philosophy, theology, and law.