MOUNT ROYAL UNIVERSITY

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Supplement to the Academic Calendar 2016-2017

This Supplement contains corrections to the 2016-2017 Academic Course Calendar (obvious typographical errors excluded), as well as amendments approved by the General Faculties Council since publishing. Specific revisions are either highlighted red (new) or ~~crossed out~~ (deleted).

MINOR IN MATHEMATICS FOR ELEMENTARY EDUCATION

The student is required to take the three core courses and then choose three courses with at least one course must be 3000 level or above from the approved Mathematics options in order to attain a total of six courses of which at least two courses must be 3000 level or above.

Required courses:

MATH 1150 – Mathematical Reasoning

MATH 1160 – Higher Arithmetic

MATH 4201 – Seminar

Approved options:

MATH 1102 – Introduction to Geometry

MATH 1103 – Introduction to Statistical Reasoning

MATH 1205 – The Beauty of Mathematics

MATH 1505 – Puzzling Adventures in Mathematics

MATH 3201 – Visual Art and Mathematics: An Integrated Understanding

MATH 3202 – Mathematics through the Ages

MINOR IN PHILOSOPHY

Philosophy investigates the basic foundations and assumptions of every subject matter to determine what these foundations are and whether they are justified. It therefore asks fundamental questions about existence, knowledge, and morality.

Required courses:

One course in Logic and Argumentation:

PHIL 1175 – Reason and Argument

PHIL 1179 – Introduction to Symbolic Logic

One course in Value Theory:

PHIL 1130 – Philosophy: Sex and Love

PHIL 1149 – Philosophy: Values and Ethics

PHIL 2216 – Nineteenth-Century Philosophy

PHIL 2219 – Philosophy of Law

PHIL 2223 – Bio Ethics

PHIL 2229 – Business Ethics

PHIL 2237 – Feminist Philosophy

PHIL 2241 – Existentialism

PHIL 2253 – Social and Political Philosophy

PHIL 2291 – Philosophy and the Environment

PHIL 3333 – Art, Beauty, Expression

PHIL 3345 – Is, Ought, Why

PHIL 3368 – Philosophy of History

PHIL 4730 – Advanced Philosophical Topics

One course in Epistemology/Metaphysics:

PHIL 1101 – Philosophy: Knowledge and Existence

PHIL 2204 – Medieval Philosophy

PHIL 2211 – The Classical Period

PHIL 2215 – The Early Modern Period

PHIL 2221 – Metaphysics

PHIL 2263 – Theory of Knowledge

PHIL 2267 – Philosophy of Science

PHIL 2281 – Philosophy of Mind

PHIL 3307 – Language, Truth, and Adventures in Abstraction

PHIL 3350 – Power, Violence, Evil

Five additional PHIL courses.

Note: Of the eight courses which make up this minor, at least two must be at the 3000 or 4000 level. No more than three courses may be at the 1000 level.

MINOR IN PHYSICS

The student is required to take a total of six physics courses: five core courses, and one approved option (as well as prerequisities as needed). A minimum grade of C+ must be achieved in all physics courses comprising the minor.

Required courses:

PHYS 1201 – Classical Physics I

PHYS 1202 – Classical Physics II

PHYS 2201 – Acoustics, Optics and Radiation

PHYS 2203 – Electromagnetism

PHYS 3602 – Elementary Quantum Mechanics

Approved options:

PHYS 3103 – Introduction to Biophysics

PHYS 3401 – Solid State

PHYS 3601 – Thermodynamics

MINOR IN POLICY STUDIES

Policies – the "rules of the road" that shape our society – are essential in an increasingly complex world. Meeting today's many economic, social and political challenges requires knowledgeable, skilled specialists in policy studies. Policy professionals are researchers, analysts and problem solvers in companies, research institutions, government agencies and non-governmental organizations.

Required courses:

POST 2201 – Introduction to Public Policy

POST 2209 – Methodology and Statistics

Six additional POST courses at the 3000 or 4000 level.

MINOR IN POLITICAL SCIENCE

Political Science, administered through the Department of Economics, Justice and Policy Studies, explores such concepts as right-centre-left, freedom, rights, justice, equality, democracy and the good life. Modern political science involves the systematic study of governmental power and authority and how these shape individuals, communities and nations.

Required courses:

PLSC 1101 – Introduction to Government and Politics

Seven additional PLSC courses, of which at least two must be at the 3000 or 4000 level and only three can be at the 1000 level.

Minors

LSCM 4409 – Supply Chain Decision-Making

(3 credits) 3 hours lecture

Participants in this course will solve various applied business problems in logistics and supply chain management. Emphasis will be on the application of critical evaluation and judgment, together with skills from the foundation disciplines in prerequisite courses, to formulate innovative business solutions for integrated case study scenarios.

Prerequisite: Logistics and Supply Chain Management 4402 or consent of the department.

LSCM 4411 – Integrated Business Solutions

(3 credits) 3 hours lecture

This course demonstrates how to apply selected information technologies for supply chain management. Emphasis will be upon identifying, assessing and using the best available software to enable enhanced performance within an overall enterprise based systems environment. Participants will be exposed to a menu of commonly used software applications including Enterprise Resource Planning tools, transactional e-commerce packages, inventory management systems, materials supply and purchasing tools, planning and scheduling packages, demand forecasting and collaborative supply chain applications.

Prerequisites: Logistics and Supply Chain Management 3305 and 4402 or consent of the department.

MATHEMATICS (MATH)

MATH 0115 – Foundations of Mathematics I

(0 credits) 5 hours lecture, 1 hour tutorial

This is a credit-free upgrading course; special fees apply. This course comprehensively covers the essential topics of algebra and the basic principles of geometry to an intermediate level. The course is designed to meet the needs of students who have a minimal background in algebra or whose proficiency may have declined during years away from formal education. Successful completion of this course prepares students for Mathematics 0130 or Mathematics 0132, where algebraic skills are utilized to study more advanced topics.

Corresponding Alberta High School Equivalent: Mathematics 10-C/Mathematics 20-1.

MATH 0130 – Pre-Calculus

(0 credits) 5 hours lecture, 1 hour tutorial

This is a credit-free upgrading course; special fees apply. Topics include: inequalities, properties of functions and graphs, polynomial functions, rational functions, exponential and logarithmic functions and trigonometric functions.

Corresponding Alberta High School Equivalent: Mathematics 30-1.

Recommended Preparation: Mathematics 0115, Mathematics 20-1 or Mathematics 20-2/30-2.

MATH 0131 – Calculus and Matrices

(0 credits) 5 hours lecture

This is a credit-free upgrading course; special fees apply Part 1: Calculus – Limits, differentiation of sums, products and quotients (excluding exponential, logarithmic and trigonometric functions), the Chain Rule, application to curve sketching, maximum and minimum problems, motion, simple integration, area under a curve and area between curves. Part 2: Matrices – Systems of linear equations, operations with matrices, special matrices, the determinant function, inverses of matrices.

Corresponding Alberta High School Equivalent: Mathematics 31.

Recommended Preparation: Mathematics 0130, Mathematics 30-1 or equivalent.

MATH 0132 – Foundations of Mathematics II

(0 credits) 5 hours lecture, 1 hour tutorial
Part 1: Set Theory, Probability and Statistics

Topics include Set Theory, Probability, Fundamental Counting Principle, Permutations, Combinations, Introduction to Statistics (sampling methods, presentation of data, measures of central tendency and dispersion, the normal distribution).

Part 2: Functions and Relations

Topics include polynomial functions, operations on rational expressions, rational equations, and rational functions, exponential and logarithmic functions, trigonometric functions. The course objectives are to describe, analyze, and graph these functions, find models from data or from a verbal description, and to solve contextual problems involving these functions without and with technology.

Corresponding Alberta High School Equivalent: Mathematics 30-2.

Recommended Preparation: Mathematics 20-1, Mathematics 20-2, Mathematics 0115 or equivalent.

MATH 1102 – Introduction to Geometry

(3 credits) 3 hours lecture

Introduction to Geometry is a foundational course intended for an audience interested in geometry and its applications. We will introduce Euclidean geometry in two and three dimensions, along with analytic geometry. Popular topics such as symmetry, fractals or the golden ratio will also be covered.

MATH 1103 – Introduction to Statistical Reasoning

(3 credits) 3 hours lecture

This course is intended for a general audience that is interested in statistical concepts in their every day life. This course will be more qualitative than quantitative and aimed at sparking interest in statistics and probability as a discipline. Emphasis will be on understanding statistical and probabilistic concepts rather than computational aspects.

MATH 1150 – Mathematical Reasoning

(3 credits) 3 hours lecture

This course explores topics in discrete mathematics including the language of logic, set theory, enumeration, probability and statistics. Basic elements of probability and statistics will be used to solve problems involving the organization, description and interpretation of data.

MATH 1160 – Higher Arithmetic

(3 credits – TG) 3 hours lecture

This course explores elementary number theory, numeration systems, operations on integers and rational number and elementary combinatorics using both inductive and deductive methods. Emphasis will be put on the development of clarity and understanding of mathematical processes and ideas, the application of these ideas to problem solving and the communication of these ideas to other people.

Prerequisite: Mathematics 30-1 or Mathematics 1150 or the permission of the department.

MATH 1185 – Calculus with Applications (formerly MATH 2285)

(3 credits – TG) 3 hours lecture, 2 hours lab

This course is an introduction to calculus with an emphasis on applications in sciences. Problem solving is a major component of this course.

Prerequisite: Mathematics 30-1 with a grade of 60% or higher or equivalent.

Note: Only one of Mathematics 1200, 1217, 2251, and 1185 can be used to satisfy graduation requirements within a Bachelor of Science.

MDWF 2005 – Pharmacotherapeutics
(3 credits) 3 hours lecture
This course covers the basic concepts of pharmacology and therapeutics with particular reference to midwifery prescribing authority. Concepts of pharmacokinetics, toxicology and adverse reactions are covered especially as they pertain to pregnancy, lactation and infants. Alternative therapies will be addressed.
Prerequisites: Biology 1220 and 1221.

MDWF 2100 – Midwifery Care: Normal Childbearing and Healthy Infants – Clinical
(9 credits) minimum 600 hours clinical experience
This course is the first of a series of placements under the immediate supervision of a registered midwife (RM). The student undertakes with guidance of a RM the assessment, care planning and administering of care to women and their newborn infants, including conducting normal births. The student will have assigned clinical hours and on-call responsibilities.
Prerequisite: Midwifery 2001.
Corequisite: Midwifery 2101.

MDWF 2101 – Midwifery Care: Normal Childbearing and Healthy Infants – Tutorial
(3 credits) 3 hours tutorial/week
Students will acquire beginning level knowledge of skills for midwifery practice. Knowledge from lectures will be applied in a simulated clinical lab setting where students will begin to develop midwifery skills. Simulation models and other resources will be used to teach, develop and assess skill acquisition. Following completion of MDWF 2001 students will be able to integrate theoretical and clinical content to provide introductory care to low risk women and newborns during pregnancy, childbirth and the postpartum period.
Prerequisites: Midwifery 1001, 1005, Biology 1220, and 1221.
Corequisite: Midwifery 1001 with consent of the department.

MDWF 2150 – Trans-cultural Clinical Placement
(3 credits) 30 hours of lecture and 130 hours clinical experience
This course combines lecture and clinical experience to enhance student understanding of the pre-conception to the postpartum period within diverse community cultures. In addition to the 4-week (32 hours weekly) clinical placement, students will engage in 30 hours of theory to prepare them for their involvement with a particular population in the experiential component of this course. Clinical experience will occur in one of, or a combination of, the following settings/populations: international, geographically remote areas, under-served communities, or other approved placements relevant to midwifery practice.
Prerequisites: Midwifery 2100 and 2101.

MDWF 3001 – Pathophysiology for Midwifery
(3 credits) Distance Delivery
This course provides an opportunity to critically examine select pathologies at the cellular, organ and systems level. The development, manifestations and effects of these pathologies on human physiological functioning are explored.
Prerequisite: Midwifery 2003.

MDWF 3100 – Interprofessional Health Placements – Clinical
(3 credits) 240 hours clinical experience
This course includes placements in a labour-delivery hospital unit, a newborn intermediate or intensive care nursery, and high risk obstetrics. Students will work in collaboration with nursing and medical practitioners under faculty supervision.
Prerequisite: Midwifery 2100.
Corequisite: Midwifery 3101.

MDWF 3101 – Interprofessional Health Placements – Tutorial
(3 credits) 3 hours tutorial
This weekly three hour tutorial will include assessment and skill development related to hospital based midwifery and nursing roles and high risk obstetrical consultation. This tutorial will focus on analysis of complex health systems issues and the respective roles and responsibilities of professionals in various models of health services provision.
Prerequisite: Midwifery 2100.
Corequisite: Midwifery 3100.

MDWF 3150 – Midwifery Care: Complications and Consultation – Clinical
(9 credits) minimum 700 hours clinical experience
This course is a placement under the supervision of a registered midwife in which the student assumes greater responsibility for care of a caseload of healthy women, carries out a greater range of technical skills without assistance, identifies more common complications and initiates planning and care of those conditions, including carrying out consultation and referrals with attention to forming interprofessional relationships. An initial workshop component will provide certification in emergency obstetrical skills. The student will have assigned clinical hours and on-call responsibilities.
Corequisite: Midwifery 3151.

MDWF 3151 – Midwifery Care: Complications and Consultation – Tutorial
(3 credits) 3 hours tutorial
This three-hour weekly tutorial will be based on case situations that include more common complications of the childbearing period.
Corequisite: Midwifery 3150.

MDWF 3175 – Midwifery Care: Maternal and Newborn Pathology – Clinical
(9 credits) minimum 700 hours clinical experience
This course is a placement under the supervision of a registered midwife. The student continues to provide care to an identified caseload of clients including those who experience complications. Identified activities may be carried out with indirect supervision. The student will participate in complex and urgent care situations as possible. Students will have assigned clinical hours and on-call responsibilities.
Prerequisite: Midwifery 3150.
Corequisite: Midwifery 3176.

MDWF 3176 – Midwifery Care: Maternal and Newborn Pathology – Tutorial
(3 credits) 3 hours tutorial/week
These tutorials will be based on case situations of less common but serious pathologies for mother and infant.
Prerequisite: Midwifery 3150.
Corequisite: Midwifery 3175.

MDWF 4100 – Midwifery Clerkship I – Clinical
(9 credits) minimum 780 hours clinical experience
This course is a placement in which the supervision of a registered midwife is increasingly indirect as the student consolidates knowledge and skills. The student assumes nearly complete responsibility for all aspects of care for a caseload of clients. Students will have assigned clinical hours and on-call responsibilities.
Prerequisite: Midwifery 3175.
Corequisite: Midwifery 4101.