

GRADE 12 COMPULSORY COURSES

ENGLISH LANGUAGE ARTS 40S (FIRST CREDIT)

Students are required to take one of three English Language Arts courses. Students are encouraged to take more than one English Language Arts course.

COMPREHENSIVE FOCUS 40S (1 CREDIT)

The Comprehensive Focus course combines elements of the literary and transactional courses. Throughout the course, students will be engaged in the study and creation of both aesthetic (50%) and pragmatic (50%) texts. Students will read and analyze a combination of literary forms and transactional texts such as journalism and expository essays. This analysis will aid students in the creation of a variety of forms designed to enhance written and oral communication skills. This course focuses on improving general reading, writing and communication skills, with a focus on employment competencies, current events and technology skills.

LITERARY FOCUS 40S (1 CREDIT)

This course focuses on those forms of English expression that are imaginative and emotional (novels, poems, short prose, drama). The purpose of this course is to expand and deepen students' understanding of and appreciation for literary forms in an intellectual way. This is a reading and writing intensive course that focuses on aesthetic writing. A variety of forms including journalistic and transactional will be studied, but the emphasis will be on literary and dramatic materials, including the study of at least one play by Shakespeare. This is a reading and writing intensive course that focuses on writing for aesthetic purposes.

TRANSACTIONAL FOCUS 40S (1 CREDIT)

The transactional focus challenges students to enhance their use of pragmatic language, or day-to-day language used for a practical purpose. In this course, students will achieve the learning outcomes of listening, reading, writing, viewing, and representing by completing various assignments with a pragmatic purpose. Students will create forms that direct, explain, persuade, argue, plan, and analyze. This is a reading and writing intensive course that focuses on **academic** writing; some competencies this course addresses are research skills, essay writing skills and communication skills. The knowledge and skills students will gain in this course are applicable to various faculties of study.

Students who are considering post-secondary education are encouraged to take both the Literary and Transactional courses.

MATHEMATICS 40S (1 CREDIT)

Students are required to take one of the three mathematics courses. Students may opt to take more than one of the following courses in which case one would be considered an elective.

APPLIED MATHEMATICS 40S (1 CREDIT)

Applied Mathematics 40S is intended for students considering post-secondary studies that do not require a study of theoretical calculus. It is context driven and promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us.

The primary goals of Applied Mathematics are to have students develop critical-thinking skills through problem solving and model real-world situations mathematically to make predictions. Technology is an integral part of both learning and assessment in Applied Mathematics. Graphing calculators, spreadsheets or other computer software will be used by students for mathematical explorations, modeling, and problem solving.

Topics include:

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|--|--------------------------------|
| 1. Analysis of Games and Numbers | 6. Permutations & Combinations |
| 2. Probability | 7. Sinusoidal Functions |
| 3. Logic | 8. Design & Measurement |
| 4. Personal Finance and Investments | 9. Research Project |
| 5. Exponential & Logarithmic Functions | |

A TI-83 or TI-83 Plus graphing calculator is required. Students may purchase their own calculators or borrow one from the school.

ESSENTIALS OF MATHEMATICS 40S (1 CREDIT)

Essentials of Mathematics 40S is intended for students whose post-secondary planning does not include a focus on mathematics and science-related fields. Essentials of Mathematics 40S builds on the knowledge and skills attained in Essentials of Mathematics 20S and 30S.

Students are expected to work both individually and in small groups on mathematical concepts and skills encountered in everyday life in a technological society.

Topics include:

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|----------------------------------|--------------------------|
| 1. Analysis of Games and Numbers | 6. Precision Measurement |
| 2. Vehicle Finance | 7. Business Finance |
| 3. Home Finance | 8. Career Life |
| 4. Statistics | 9. Probability |
| 5. Geometry & Trigonometry | |

PRE-CALCULUS MATHEMATICS 40S (1 CREDIT)

Pre-calculus Mathematics 40S is designed for students who intend to study calculus and related mathematics as part of post-secondary education. The course builds on the topics studied in Pre-calculus 30S and provides background knowledge and skills for the study of calculus in post-secondary institutions. The course is a high-level study of theoretical mathematics with an emphasis on conceptual understanding through procedural fluency.

- Topics include:
1. Polynomial Functions
 2. Trigonometric Functions
 3. Transformations of Functions
 4. Trigonometric Identities
 5. Exponential and Logarithmic Functions
 6. Rational Functions
 7. Function Operations
 8. Permutations, Combinations & the Binomial Theorem

A mark of 70% in Pre-Calculus Mathematics 30S is strongly recommended.

PHYSICAL EDUCATION 40F (1 CREDIT)

This compulsory full-credit course is designed to help youth take greater ownership of their own physical fitness, to encourage them to seek out activities that interest them, and to engage in active lifestyles into the future. Students will study topics related to fitness management, personal and social development, nutrition, and healthy relationships. The focus of this content will be on health and personal planning. These topics will make up the core 25% in-class component of the course content.

Students will be asked to choose from two delivery models (33% in or 100% in) varying the amount of time that they spend in- and out-of-class working on their own individual fitness plans. These plans will be discussed with teachers at which time students will be introduced to safety and risk management planning to minimize the associated risks of the activities they have chosen.

NOTE: In order to earn this compulsory credit, students will be required to submit a personal fitness portfolio containing elements such as a fitness plan, physical activity log, or journal entries.

In the 33% in model, parents/guardians will be required to review the student's physical activity plan and sign a parent declaration and consent form acknowledging their approval of the chosen activities and acceptance of responsibility for risk management, safety, and supervision. Parents/guardians will also be required to verify the entries of the student's physical activity log through a sign-off procedure.

GRADE 12 OPTIONS

APPLIED FAMILY STUDIES 40S

Applied Family Studies 40S prepares students for a care giving role with infants, toddlers, and children through the study of child development. This course provides a foundation for further study within the field of early childhood education and related careers. The skills and knowledge learned in class are applied to a 40-hour practical experience with children where students will observe, guide behavior, ensure health and safety, and participate in play-based learning experiences.

Special Note: Previous experience is required prior to enrolling in this course.

BIOLOGY 40S (1 CREDIT)

Biology 40S is a valuable course for students who have an interest in or are planning to go into biological, medical, agricultural or ecological studies after high school. Biology 30S is recommended as a prerequisite for Biology 40S.

Major topics include: Genetics:

1. Understanding biological inheritance
2. Mechanisms of inheritance

Biodiversity

1. Evolutionary theory & biodiversity
2. Organizing biodiversity
3. Conservation of biodiversity

CALCULUS 45S (0.5 CREDIT)

Calculus is intended for students whose plan is to pursue an education in the areas of Mathematics, Engineering, Commerce, Economics, Business Administration, Science (including pre-Pharmacy, pre-Medicine and pre-Dentistry programs), and related fields.

Students will study the techniques of calculus by solving theoretical and real-world problems. A solid understanding of pre-calculus mathematics is required.

Topics include:

1. Limits
2. Derivatives
3. Application of Derivatives
4. Tangents
5. Integrals

CHEMISTRY 40S (1 CREDIT)

With a focus on critical and creative thinking throughout the problem solving process, Chemistry 40S is an academically challenging course. The student must be willing to invest time thinking independently about experimental data and chemical theory, trying to understand not only “what” happens in a chemical reaction, but also “why” it happens. Most sections of this course also require strong skills in mathematical reasoning. Chemistry 30S is a prerequisite for this course and Pre-calculus or Applied Math is recommended. The problems presented focus on chemical theory surrounding:

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|----------------------|---------------------|
| 1. Aqueous solutions | 4. Equilibrium |
| 2. Atomic structure | 5. Acids and bases |
| 3. Kinetics | 6. Electrochemistry |

CINEMA AS A WITNESS TO MODERN HISTORY 40S (1 CREDIT)

This course considers cinema as a source of information – or misinformation – about the 20th century world, and as a springboard for critical reflection about diverse interpretations of history. Students will engage in a variety of learning strategies as they study films from various genres and periods, explore the historical and social context in which the films were created, deconstruct the techniques used to convey the filmmakers’ messages, pose questions about the influence of cinema on their understanding of the past, conduct inquiry into major themes in world history, develop critical media literacy, and engage in historical thinking. Some of the 20th century events that will be explored in this course include World War I, World War II, The Great Depression, the Holocaust and the Cold War.

COMPUTER SCIENCE 40S

In Computer Science 30S/40S, students will be introduced to computer programming. This course will alternate yearly with the following plans:

1. Students will begin the course learning of the structure of coding using Scratch. This will evolve into the basics of Python where we will learn of some of the basic practices of one of the most user-friendly coding languages. The second part of this course will move into Java and object-oriented programming using Alice (for 3D environments) and Greenfoot (for 2D environments).
2. Students will begin the course learning of the structure of coding using Scratch. This will evolve into the basics of Python where we will learn some of the basic practices of one of the most user-friendly coding languages. The second part of this course will transition into game-design using Pygame. If time permits, other languages could be explored, including C, SQL, and Java.

CONCERT BAND 40S (1 CREDIT)

The Grade 12 Band program is open to any student who has completed four or five years of instruction on a Brass, Woodwind, or Percussion Instrument. Students may join the program with the permission of the instructor if they can demonstrate adequate instrumental skills. Students will be expected to develop and improve their individual playing skills, and will have opportunities to perform in solo or ensemble events as part of their course. In addition to concert band music, jazz and contemporary music will also be covered in class. Students participating in the Band program must perform at various concerts, festivals, and school functions during the year; failure to attend may result in withdrawal from the course. Music theory will continue within the context of the rehearsals and performances.

CONCERT CHOIR 40S (1 CREDIT)

Concert Choir 40S is designed for students who have a strong interest in music and ensemble singing. Students will sing a variety of music from many cultures and traditions including Jazz, Classical and World music. Students will expand their understanding of reading music, music theory and history. Students will be required to perform at concerts and festivals throughout the school year; failure to attend will result in withdrawal from the course.

A piano accompanist is an important part of a vocal ensemble. Piano players are welcome to audition at time of registration.

DRAFTING 40G (1 CREDIT)

“Learning Today for Tomorrow”

This course will provide an opportunity for students to develop drafting skills in a practical activity-based approach. Drafting projects will be incorporated, allowing students hands-on experiences in the different stages as they develop the necessary theoretical background in order to design and construct various drawings utilizing AutoCAD and Revit computer design programs. Architecture-Residential Drafting and Design with the inclusion of Residential computer design programs and the Solid Works Design program utilizing a 3-D Printer will be incorporated to enhance the program. The development of good work habits will be a key component, as emphasized in any workplace.

Text: Architecture Residential Drafting & Design

DRAMA 40S (1 CREDIT)

This course allows students to practice and further develop dramatic skills. Students will continue developing a variety of theatre skills including all aspects of theatre production. Students will develop rehearsal and performance skills, formal and informal character development through improvisational skills, performance exercises, student group projects, and script writing. Students will be expected to complete both solo and group performances in class.

ELECTRONICS 40G (1 CREDIT)

This course will provide an opportunity for students to develop electronic skills in a practical activity-based approach. Electricity/electronics projects will be incorporated, allowing students hands-on experiences in the different stages as they develop the necessary theoretical background in order to design and construct various projects in the respective fields. Mr. Circuits 2 “Digital Magic” electronic kits/computer software and residential wiring work stations will be incorporated to enhance the practical portion of the course. Safety and developing good work habits will be a key component, as emphasized in any workplace.

ENGLISH LANGUAGE ARTS 40S (SECOND CREDIT)

Students may choose to take two of the Grade 12 English Language Arts courses (Comprehensive Focus, Literary Focus, and Transactional Focus). Course descriptions are found in the Grade 12 Compulsory Course section.

EXERCISE SCIENCE 40S (1 CREDIT)

This course is designed to provide an in-depth study into the science of human performance. The human body’s physiological systems are a complex framework between the brain and nervous system. The purpose of this course is to give students a clear picture of how those physiological systems work together to maximize human performance. Students will use their knowledge of various aspects of exercise science such as biomechanics, kinesiology, fitness testing, injury treatment and prevention and nutrition to develop a greater understanding of how the interaction between brain and nervous system leads to mastery in high performance activities.

A small part of this course will be to apply what is learned in the classroom and use the knowledge to complete and participate in training programs, workouts, and testing.

FAMILY STUDIES 40S (1 CREDIT)

Grade 12 Family Studies emphasizes the transition from adolescence to adulthood with the ability to examine and practise skills that help develop healthy interpersonal relationships. The skills and knowledge will provide the opportunity for students to make informed and responsible life management choices now and in the future.

Students will learn about:

1. Making career and marriage decisions
2. Dealing with stress and conflict
3. Coping with divorce
4. Facing old age with foresight and optimism

Special Note: This course is eligible for use as an entrance course for admission to both the University of Manitoba and University of Winnipeg.

FOOD & NUTRITION 40S (1 CREDIT)

This course will explore sustainability and ethical practices within food production and access. Students will examine food security and barriers that exist to achieve food security for all people. Students will investigate solutions to local and global food accessibility. This course will provide the opportunity for students to apply food preparation skills in a practical setting.

FRENCH: COMMUNICATION & CULTURE 40S (1 CREDIT)

This course consists of a completion of all grammatical topics and structures required for credit in French 40S. There is a definite emphasis on the country of France with themes such as careers, freedom of the press/speech, technology, and "la francophonie". There will also be time devoted to general vocabulary enrichment, everyday situations and discussion of current events (T.V. newscasts, sportscasts, etc.). Readings will vary from articles in newspapers, to passages by French Canadian authors and a brief study of some well-known French authors.

Viewing popular French movies, creating skits based on them and playing interactive communicative games will be an integral part of the classroom life. Field trips to the French theatre group Le Cercle Moliere are planned, as well as the opportunity to travel to Quebec City and Montreal and/or Paris, France if students are interested.

Vive le francais!

HIGH SCHOOL APPRENTICESHIP PROGRAM 40S (UP TO 8 CREDITS)

This option is available to students who are at least 16 years of age. It combines regular high school academic credits and on-the-job training. Students can earn up to 8 academic credits towards graduation while accumulating training hours in a trade of their choice. Students are granted one credit for every 110 hours of training they successfully complete.

Students must find a qualified tradesperson to train them, and once this is done, an agreement between the student and employer is forwarded through the school to the Apprenticeship Branch. Students will be enrolled in courses at school to satisfy the compulsory academic requirements for graduation, and when not in school, these students work for their employer and are paid a trade-regulated wage.

There is a fee of \$50.00 to register with the Apprenticeship Branch. Students interested in the High School Apprenticeship Program are asked to see Mr. Baldwin.

HISTORY: WESTERN CIVILIZATION 40S (1 CREDIT)

The major topics of the program are as follows:

1. Introduction to Western History
2. The Greek World (2000 B.C. – 500 B.C.)
3. The Roman World (509 B.C. – 476 A.D.)
4. The Middle Ages (500 - 1494)
5. The Renaissance and Reformation (1494 - 1600)
6. Absolutism and representative Government (1598 - 1715)

The purpose of this course is to give students an overview of major events in the progress of western civilization. The course examines major wars (Greco-Persian Wars, Peloponnesian Wars, Punic Wars, the Hundred Years' War, the Wars of the Roses etc.), the rise and fall of world powers (Greek city states, Roman Empire, Spanish Empire, French Empire, English Empire) and examines the social and cultural changes that have taken place over the past two centuries (philosophy, architecture, political thought, feudalism, renaissance, religion).

The course also examines the roles of influential individuals, such as Alexander the Great, Julius Caesar, Octavian, Charlemagne, Alfred the Great, William the Conqueror and others, who shaped the age in which they lived. Students will be given the opportunity to conduct research in areas of personal interest.

JAZZ BAND 40S (1 CREDIT)

The Grade 12 Jazz program is open to Band 40S students wishing to expand their musical skills and increase their performance opportunities. Students who cannot enroll in both Band 40S and Jazz Band 40S should be prepared to do extra work to be able to perform with the Concert Band.

Performance at concerts, festivals, and in the community is required, and forms a basis for evaluation. Failure to attend may result in withdrawal from the course.

LAW 40S (1 CREDIT)

The law affects almost every aspect of your life. Whether you are planning on pursuing a career in the legal field or not, it is important to have a general understanding of the law. This course will cover the basics, with a major focus on criminal law. Topics include: the structure of the legal system in Canada, the Canadian Charter of Rights and Freedoms, types of criminal offences, policing, the court system, and alternatives to prison. Students will take part in a field trip to the Law Courts of Manitoba to observe trial procedures first-hand.

MATHEMATICS 40S (1 CREDIT)

Students may take any of the Grade 12 Math courses offered (Applied, Essentials or Pre-Calculus) as an elective. Course descriptions are found in the Grade 12 Compulsory Course section.

METALWORK TECHNOLOGY 40G (1 CREDIT)

Successful completion of Metalwork Technology 30G is strongly recommended. This course is a continuation of the 30G program, with an even greater emphasis on the skills used in the welding and machining processes. There will be compulsory and optional projects that should allow the student to expand his/her interests in the area of metalwork.

PEER ASSISTANT 41G (1 CREDIT)

This course is designed to further build on the skills developed in the Career Development Internship 30G course. Students interested in pursuing a career in human services will be introduced to some aspects of the field of work as well as the skills required. The course has a theory and practical component. In their practicum, students will be assigned to specific classrooms and will provide supports to students as determined by the classroom teacher. Peer Assistants are expected to be strong role models and demonstrate a commitment to the program through regular attendance.

In theory classes topics may include:

1. Inclusion
2. Strategies for working with students
3. Information on a variety of disabilities
4. Disability related issues
5. Mental health
6. Building positive relationships
7. Communication Skills
8. Learning Styles

PHYSICS 40S (1 CREDIT)

This course builds on the concepts covered in Physics 30S. The course is divided into two major sections: the study of motion and the study of field theory. Numerous connections are made between theory and practical applications. Major topics include:

1. Mechanics
 - kinematics
 - dynamics
 - momentum
 - projectile motion
 - circular motion
 - work and energy
 - gravitational fields and orbits
2. Electricity & Magnetism
 - electric fields
 - magnetic fields
 - electric circuits
 - electromagnetic induction
3. Medical Physics (focus on nuclear physics)
 - nuclear physics and radiation
 - medical applications of radiation

PSYCHOLOGY 40S (1 CREDIT)

Psychology is the scientific study of behaviour and mental processes. Units of study may include:

1. Introduction to Psychology, the Roots of Psychology, the Scientific Method, and excerpts from the 7 Habits of Highly Effective Teens
2. The Mind and Consciousness
3. Sensation and Perception
4. Learning and Memory
5. Thinking, Language and Intelligence
6. Motivation, Emotion and Stress
7. Personality
8. Social Psychology
9. Psychological Disorders and Treatments

This course is designed to help students understand themselves and acquire skills so they can deal with issues proactively, solve problems and nurture healthy relationships. It also helps students to understand societal issues such as mental illness and violence.

TEXTILE ARTS & DESIGN 40S (1 CREDIT)

Students will explore the workings of the garment industry and the glamorous world of fashion designers. They will take on the role of designer and try their hand at fashion illustration. Practical projects will reflect the ability to problem solve and students will have a role in the choice of projects.

This course would be great for anyone looking at a career in the design industry such as fashion design, stylist, merchandising or marketing.

Students will learn design skills, fashion illustration, project management, problem solving and construction skills

Students will make at least 3 textile projects over the course of the semester.

Special Note: This course is eligible for use as an entrance course for admission to both the University of Manitoba and University of Winnipeg.

VISUAL ARTS 40S (1 CREDIT)

In the Grade 12 Art program, students will be more sophisticated in their understanding of visual art expression. They will be expected to demonstrate the ability to define personal preferences more clearly and make connections between ideas, skills, concepts and the place of art in society today. Students will develop creativity through visual problem solving. Drawing, painting, and sculpture processes will be explored. Students may work on a portfolio if they intend to pursue their studies in the visual arts at a college, university or another post-secondary institution.

Most supplies are provided in class, however students should be prepared to purchase a sketchbook, pencils and erasers. Other specialized materials may need to be provided by the student.

WOODWORK TECHNOLOGY 40G (1 CREDIT)

Successful completion of Woodworking Technology 30G is strongly recommended. Practical hands on woodworking is emphasized. Students must be motivated and able to work with minimal supervision to be successful. Students are required to complete compulsory projects, optional projects are at the discretion of the instructor.