



Grade 12 Course Descriptions

Mandatory Courses

Applied Mathematics 40S – AMTH40S (3903-40s)

(Prerequisite - 65% in Applied Mathematics 30S or 50% in Pre-Calculus Mathematics 30S)

Grade 12 Applied Mathematics 40S is one of two curricula available for students planning to pursue post-secondary studies in mathematics and science. This course focuses on the application of mathematics and utilizing technology such as graphing calculators to solve problems. Topics include: personal finance, counting methods, probability, and polynomial, exponential, logarithmic, and sinusoidal functions.

Biblical Studies 41G SIC – BIB41G (7850-41G)

The goal for Biblical Studies in Grade 12 is to learn, develop, understand, and articulate a Biblical worldview. Students will explore how to live out that worldview within the context of other worldviews. The course will look at everyday situations to examine the moral and ethical issues students face and to develop a personal plan of action in response to these issues. The 21st Century world that we are living in requires us to understand current trends, ideas and cultural directions. We will explore what it means to grow and nurture our Christian faith, compare it to other faiths, and determine how to live out our faith in the world we live in today.

ELA Literary Focus 40S – ELTF40S (0093-40S)

This course will provide students with an opportunity to explore classic works of literature as well as create their own texts. In this course, students will be reading, writing, speaking, listening, viewing, and representing various texts in order to appreciate their literary and aesthetic value. The focus will be on using the English language to communicate meaning in an artistic fashion and expressing the full range of emotions in the human experience.

ELA Transactional Focus 40S – ETRF40S (0094-40S)

This course will incorporate all six language arts (reading, writing, speaking, listening, viewing and representing) as students explore the pragmatic or transactional elements of the English language. Emphasis will be placed on students' ability to write and speak clearly and effectively in order to communicate their ideas fully.

Essential Mathematics 40S – ESMT40S (3000-40S)

(Prerequisite – Grade 11 Mathematics credit)

While Essential Math **IS** accepted for admission at most universities and colleges, this course is intended for students whose post-secondary planning does not include a **focus** on mathematics and science-related fields. This course deals with a variety of practical applications of mathematics to life. The topics covered are not just used in work life, but in personal lives as citizens and consumers: vehicle finance, statistics, precision measurement, home finance, geometry and trigonometry, business finance and probability.

Physical Education 40F - PE40F (0169-40F)

- Active Healthy Lifestyles

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 incorporate active lifestyles into their futures. Students will study topics related to fitness management, nutrition, sexual health, social/emotional health, personal development and PE options. The focus of this content will be on health and personal planning. These topics will make up the core 50% in-class component of the course content. For the remaining 50% of the course, students will be required to develop and implement, on their own time, a personal physical activity plan as part of a physical activity practicum. As part of earning a credit for this course, students will be required to submit a personal fitness plan and a physical activity log (60 hours). Students will be graded for completion of the course with a Complete or Incomplete designation.



Mandatory Courses

Volleyball Academy 40F - PE40F (0169-40F)

In the Volleyball Academy (which will include Beach Volleyball) students will have the opportunity to earn their Physical Education credit with the major focus being on the sport of volleyball. Theory of units of study may include history of sport, sport nutrition, fitness programming and training, prevention and care of athletic injuries, theory of coaching with the focus on volleyball. Sport Acquisition units may include skill development (basic and advanced), individual and team tactics, fitness and conditioning, offensive and defensive strategies as well as cross training activities. In addition to these units there may be field trips to University practices and games. Specialty guest presenters will also be used to enhance student learning and the overall experience of the course.

Basketball Academy 40F - PE40F (0169-40F)

In the Basketball Academy, students will have the opportunity to earn their Physical Education credit with the major focus being on the sport of basketball. Theory of units of study may include history of sport, sport nutrition, fitness programming and training, prevention and care of athletic injuries, theory of coaching with the focus on basketball. Sport Acquisition units may include skill development (basic and advanced), individual and team tactics, fitness and conditioning, offensive and defensive strategies as well as cross training activities. In addition to these units there may be field trips to University practices and games. Specialty guest presenters will also be used to enhance student learning and the overall experience of the course.

Fitness Academy 40F - PE40F (0169-40F)

This course will focus on topics, issues and concerns relevant to personal health, wellness and fitness. Students will take part in a wide variety of activities that will help them take greater ownership of their personal physical fitness development, encourage the discovery of new physical activities suited to their personal interests and promote an active, healthy lifestyle and overall personal wellness. Activities will involve weight training, circuit training, core endurance, agility, step aerobics and flexibility exercises. Alternate fitness activities such as aquatics, kickboxing, pilates, spinning, and skating may be explored. This course is divided into three components: classroom work, in class activity, and out of class activity. Students will study topics related to fitness management, mental health, healthy relationships, substance use and abuse prevention.

Precalculus Mathematics 40S – PCMA40S (3939-40S)

(Prerequisite - 70% in Precalculus 30S)

Pre-Calculus Mathematics is designed for students who intend to study calculus and related mathematics as part of their post-secondary education. Precalculus 40S is primarily a high-level study of theoretical mathematics with an emphasis on problem solving, functions, and graphing. Course content includes: Rational and Polynomial Functions, Circular Functions (Trigonometry), Transformations (Graphing), Trigonometric equations and Identities, Exponents and Logarithms, Permutations and Combinations, and the Binomial Theorem.



Electives

Art 40S – ART40S (0274-40S)

Students in this course focus on the development of a portfolio of artwork that reflects their talents using a variety of media. Students are encouraged to develop a sense of artistic autonomy and follow through on self-initiated creative projects. Class activities include exploration of abstract and art styles, deepening of drawing skills and ventures into ceramics.

Band 40S – MS2A40S (0260-40S)

(Prerequisite Band 30S or audition)

This class will provide the structure for students to further develop their instrumental skills that were established in Band 30S. These skills include increased competence on their specific instrument, a working knowledge of music theory, a greater understanding of performance, an increased ability to perform in a large ensemble, and the discipline to model Christ-like professionalism by taking personal responsibility for the ensemble.

Biology 40S – BIO40S (0124-40S)

(Biology 30S is NOT a prerequisite for this course)

Biology 12 is a study of classical and modern genetics, focusing on how organisms survive. DNA structure and manipulation is explored through lab experiences. Origins of life is covered within a Christian worldview, preparing students to dialogue intelligently with others. Students taking this course must be able to manage large amounts of new vocabulary and concepts.

Chemistry 40S – CHEM40S (0122-40S)

(Prerequisite – Chemistry 30S)

The Chemistry 40S curriculum at LCS is designed to bring a global awareness to chemistry related issues facing the world today and how to deal with them through a Christian worldview. Topics include: Chemical Kinetics, Equilibrium, Aqueous Reactions, Acids and Bases, Electrochemistry, and Atomic Structure. Students will apply the scientific method in a variety of hands on laboratory experiences that help develop an appreciation for the importance of chemical applications.

Choral Music 40S – MS1A40S (0258-40S)

(Prerequisite Choral Music 30S or audition)

Students will continue to explore individual skills and focus on ensemble performance skills. They will continue to develop vocal technique, listening/aural and music reading skills, musical independence, expressive and communicative skills, and adaptability as a performer, as well as study, preparation, performance skills and an understanding of historical contexts. Students will also be encouraged to develop an enthusiasm and appreciation of choral expressive art.

Cinema as a Witness to Modern History 40S - CINE40S (1123-40S)

This course considers cinema as a source of information – or misinformation – about the past, and as a springboard for critical reflection about diverse interpretations of history. Students will engage in a variety of learning strategies in this course as they study films from various genres and periods. Students will 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 an inquiry into major themes in world history, develop critical media literacy and engage in historical thinking. Each film, including documentary and dramatic selections from Canadian, American, and International cinema, is viewed and analyzed as a product of its historical period and as an interpretive representation of the past. The course deals with historical developments and themes that have influenced world history since the beginning of the 20th century, including ideology and revolution, power and propaganda, imperialism and decolonization, social transformation, war and peace, oppression and resistance, environmental impact and technological change.



Electives

Computer Science 40S – CSCI40S (0280-40S)

(Online course – Computer Science 30S is a prerequisite)

If students are interested taking in Computer Science 40S there will be an initial registration fee of \$150.00. Once students have successfully completed the course the registration fee will be reimbursed.

In this second Computer Science course, students continue to study how computer technology works. The emphasis continues to be on programming in Java, using the Greenfoot (www.greenfoot.org) and BlueJ (www.bluej.org) environments. Students will also learn about the types of careers available to computer science students. This is a project based course in which students study program design while they create interactive games and simulations for computers, web pages and mobile devices.

Drama 40S – DR1A40S (0239-40S)

This course further develops the skills learned at the Drama 30S level. Students will be learning and applying structures in order to create drama pieces, based on themes and topics that the teacher and students decide are relevant to explore. Students are introduced to a wider variety of strategies to improve audition performance including the development of repertoire such as monologues, mimes, and sketches. An understanding of theatre and stage terminology, and the role and function in society past and present and in the church will be explored is also included. Expectations of fourth year students will include writing, directing and producing dramatic works. Field trips to view live theatre performances and attending festivals, conferences or workshops may also be part of the course.

Family Studies 40S – FAM40S (0487-40S)

Where is the family going in the future? During this course, students will learn about the basic family unit and all the factors that influence this structure. It will assist students in the development of biblical values for family life and the technical, communicative and critical thinking skills that foster productive work and family life. The course will help students to obtain knowledge and skills to make informed and responsible choices now and in the future. The course includes potentially sensitive content. Course content includes: Family throughout the life cycle, contributions of aging adults, human development with a focus on youth and adult development, relationships, conflict, health and wellness, finances, and compassionate communities.

French 40S – FRE40S (0403-40S)

A major goal of students who choose to take French in high school is to develop a basic oral fluency. Students will continue to develop this fluency through speaking and listening and be supported by reading and writing. In this course students will do a novel study, creative writing assignments, study various topics (ie: life after high school, independent living) and be expected to operate solely in French in the classroom. Students will be studying a wide variety of verb tenses and projects will be presented to the class. An oral exam accompanies the written exam at the end of term.

Geography 40S – GEOG40S (1126-40S)

The basic theme of the course is the relationship between people and the cultural and physical environments which surround them. Issues studied are World Population, Industrialization, Energy, Urbanization, Resource Development, and the Environment. The disparity between the developed world and the developing world is studied. Students will have the opportunity to research and discuss these world issues with a view to suggesting some solutions to the problems facing the world.

Global Issues 40S – GLOI40S (1128-40S)

Global Issues examines human societies and the complex interactions among human beings living together in a shared world. This course provides a lens of ecological literacy through which students can study and understand the complex and often critical global issues that societies face today. We study issues of media, climate change, social justice, population growth, poverty and other challenges in the world today.



Electives

History: Western Civilization 40S – HTWC40S (1136-40S)

This course involves a topical survey of the history and civilizations of Western Europe. Take a wild ride through thousands of years of history looking at topics like ancient Egypt, Greece and Rome and moving through to medieval life, renaissance values, reformation ideas, industrialization, and recent twentieth century ideas and trends will be studied.

Intro to Calculus 45S (1/2 credit) – CALC45S (3940-45S)

Prerequisite 70% in Pre-Calculus 30S

This advanced mathematics course is intended for students who plan to study post-secondary calculus. This is a high-level problem solving course, with such content as limits, slopes of tangents, derivatives, implicit differentiation, related rates, extrema problems, curve-sketching, and integration.

Jazz Band 40S MS3A40S (0262-40S)

(must be enrolled in Band 40S)

This class will help students develop necessary skills for becoming an independent musician outside of a structured classroom. These skills include: a working knowledge of music theory (specifically jazz theory), the ability to perform various jazz forms, a working knowledge of the history of jazz, an ability to improvise in various styles, and the discipline to model Christ-like professionalism by taking personal responsibility for the ensemble.

Law 40S – LAW40S (0580-40S)

This course provides students with an introduction to the legal system as well as the principles, practices, and consequences of law with regards to torts, contracts, crimes, property rights, family, and inheritance. Topics include Fundamentals of Law, Criminal Law, Civil Law, and Family Law. It is highly participatory and aims to familiarize students with the basics of Canadian Law.

Physics 40S - PHYS40S (0123-40S)

(Prerequisite – Physics 30S)

Physics deals with the basic laws of nature governing the interaction between matter and energy. Mathematical formulae are used to describe laws of physics. Demonstrations and experiments are used to illustrate various topics. Strong problem-solving skills are essential for success. Topics include: Mechanics of motion, Electric and Magnetic Fields, Electricity, and Medical Physics.

Psychology 40S – PSY40S (1010-40S)

Psychology is the scientific study of behavior and mental processes. It uses scientific methods to discover ways of understanding the complexities of human thought and behavior, as well as differences among people. Studying psychology gives students lifelong skills such as dealing with issues proactively, solving problems, learning, and nurturing healthy relationships. It helps students understand themselves, and deal with issues in their own lives such as inner conflicts, relationships with parents and peers, and intimacy. It also helps students understand societal problems like addiction, violence and prejudice. This course exposes students to major topics found in the field of psychology. It emphasizes the issues that are of particular direct interest and relevance to students completing high school. Students explore the scientific methods upon which psychology is based. They can then apply what they have learned to their daily lives.

Vocal Jazz 40S – MS4A40S (0264-40S)

(Must be enrolled in Choral Music 40S)

This course is an extension of some of the skills taught in the concert choir program and provides an opportunity for an application of these skills as well as many others relating specifically in acappella and vocal jazz ensemble music. It is an advanced ensemble and participation is by audition only. This course will require considerable time outside of the school schedule, and students must be prepared to give high commitment to this ensemble. Through exposure to a variety of musical styles, students will explore and develop skills in the areas of ear training, rhythm, harmony, and improvisation. This course will also increase their knowledge of theory, history, terminology and repertoire.