



CARDINAL LEGER CATHOLIC SECONDARY SCHOOL

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We believe that each one, created in the image and likeness of God, is called by name into the Dufferin-Peel community to realize the Ontario Catholic School Graduate Expectations to the fullest extent possible as we all journey from the early years to vocation.

COURSE OUTLINE

Department:	Mathematics
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Course:	Data Management
Course Code:	MDM 4U1

Common Course Calendar	Course Description:
	<p>This course broadens students' understanding of mathematics as it relates to managing information. Student will apply methods for organizing large amounts of information; apply counting techniques, probability, and statistics in modeling and solving problems; and carry out a culminating project that integrates the expectations of the course and encourages perseverance and independence. Students planning to pursue university programs in business, the social sciences, or the humanities will find this course of particular interest.</p> <p>This course will help students address the Ontario Catholic School Graduate Expectation that they adopt a holistic approach to life by integrating learning from various subject areas and experience.</p>

Ministry/ICE Curriculum Documents	Strand/Unit Title	Corresponding Catholic Graduate Expectation Indicators for each Strand/Unit
	<p>COUNTING AND PROBABILITY By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. solve problems involving the probability of an event or a combination of events for discrete sample spaces; 2. solve problems involving the application of permutations and combinations to determine the probability of an event. 	<p>- applies effective time and resource management skills</p>

	<p>PROBABILITY DISTRIBUTIONS By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. demonstrate an understanding of discrete probability distributions, represent them numerically, graphically, and algebraically, determine expected values, and solve related problems from a variety of applications; 2. demonstrate an understanding of continuous probability distributions, make connections to discrete probability distributions, determine standard deviations, describe key features of the normal distribution, and solve related problems from a variety of applications. <p>ORGANIZATION OF DATA FOR ANALYSIS By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. demonstrate an understanding of the role of data in statistical studies and the variability inherent in data, and distinguish different types of data; 2. describe the characteristics of a good sample, some sampling techniques, and principles of primary data collection, and collect and organize data to solve a problem. <p>STATISTICAL ANALYSIS By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. analyse, interpret, and draw conclusions from one-variable data using numerical and graphical summaries; 2. analyse, interpret, and draw conclusions from two-variable data using numerical, graphical, and algebraic summaries; 3. demonstrate an understanding of the applications of data management used by the media and the advertising industry and in various occupations. <p>CULMINATING DATA MANAGEMENT INVESTIGATION By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. design and carry out a culminating investigation* that requires the integration and application of the knowledge and skills related to the expectations of this course; 2. communicate the findings of a culminating investigation and provide constructive critiques of the investigations of others. 	<p>- Integrates learning from various subject areas and experiences</p> <p>- thinks reflectively and creatively to evaluate situations and solve problems</p>
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Assessment and Evaluation:

Category Weightings	Weight %
Knowledge/Understanding	30
Thinking	20
Application	30
Communication	20

Final Summative Assessments	Overall Weighting
Term Work	70 %
Course Culminating	10%
Exam	20%

Learning Skills and Work Habits

E= Excellent G=Good S=Satisfactory N= Needs Improvement

Responsibility	<ul style="list-style-type: none"> • Fulfills responsibility and commitments. • Takes responsibility for and manages own behavior.
Organization	<ul style="list-style-type: none"> • Devises and follows a plan and process for completing tasks. • Establishes priorities and manages time
Independent Work	<ul style="list-style-type: none"> • Independently monitors, assesses, and revises plans to complete tasks and meet goals. • Uses class time to complete tasks.
Collaboration	<ul style="list-style-type: none"> • Accepts various roles and an equitable share of work in a group. • Builds healthy peer-to-peer relationships.
Initiative	<ul style="list-style-type: none"> • Looks for and acts on new ideas and opportunities. • Approaches new tasks with a positive attitude.
Self-Regulation	<ul style="list-style-type: none"> • Sets own goals and monitors progress towards achieving them. • Seeks clarification or assistance when needed.