



Cawthra Park Secondary School

Statement of Expectation for Students and Parents

Department: Mathematics and Business
Course: Mathematics of Data Management (12 University)
Prerequisite: MCR 3U0 or MCF 3M0

Department Head: Mrs. L. Fernandes
Course Code: MDM 4U0
Credit Value: 1

Course Description

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing and analysing large amounts of information; solve problems involving probability and statistics; and carry out a culminating investigation that integrates statistical concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. Students planning to enter university programs in business, the social sciences, and the humanities will find this course of particular interest.

Overall Expectations

- solve problems involving the probability of an event or a combination of events for discrete sample spaces;
- solve problems involving the application of permutations and combinations to determine the probability of an event;
- 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;
- 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;
- demonstrate an understanding of the role of data in statistical studies and the variability inherent in data, and distinguish different types of data;
- 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;
- analyse, interpret, and draw conclusions from one-variable data using numerical and graphical summaries;
- analyse, interpret, and draw conclusions from two-variable data using numerical, graphical, and algebraic summaries;
- demonstrate an understanding of the applications of data management used by the media and the advertising industry and in various occupations;
- 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;
- communicate the findings of a culminating investigation and provide constructive critiques of the investigations of others.

Course Strands

- Counting and Probability
- Probability Distributions
- Organization of Data for Analysis
- Statistical Analysis
- Culminating Data Management Investigation

Assessment and Evaluation

Assessment and evaluation in this course will be based on the expectations set out in the provincial curriculum documents. Students will be provided with numerous and varied opportunities to demonstrate the full extent of their achievement. A final grade in the course will be determined as follows:

- Term Evaluation = 70%
- Final Evaluation = 30% (10% Culminating Project, 20% Final Exam)

Each assessment will be evaluated in *at least* one of the following specific categories and will be weighted in the final grade as noted:

- Knowledge / Understanding = 20%
- Application / Making Connections = 20%
- Thinking / Inquiry = 25%
- Communication = 5%

Learning Skills Expectations

Learning skills will not be included in the numeric grade for the course *unless* they are part of the provincial curriculum expectations for the course. However, development of these skills is critical to academic achievement. Therefore, they will be assessed throughout the course and will be rated separately on the provincial report card. The learning skills that are assessed are:

- Responsibility
- Independent Work
- Collaboration
- Organizational Skills
- Initiative
- Self-Regulation

Department and School Policies

Students are expected to familiarize themselves with the more detailed and pertinent information found in the Cawthra Park Student Agenda.

Attendance: Process is an integral part of courses at Cawthra Park. Skills are taught, practiced and assessed daily in the classroom. For this reason, daily attendance is crucial for success.

Deadlines: Students at Cawthra Park often have numerous and varied commitments tied to the school and its programs. Therefore, students are encouraged to negotiate due dates and deadlines when the need arises. However, negotiations between teachers and students must occur well in advance of the deadline for submission or completion of assignments. In some cases, a window of opportunity or flexible timeline for the submission or completion of work may exist. The nature of some assignments or tasks may necessitate absolute, non-negotiable deadlines for which there can be NO extension.

Missed Evaluations: Absence from scheduled assessments, such as tests or performance tasks, for unauthorized reasons is regarded as a serious matter. A mark of zero will be assigned if there is not a legitimate reason for the student being absent. Students will have the opportunity to complete assessments or tasks missed for legitimate reasons or extenuating circumstances, such as in-school activities, field trips, illness or a death in the family. Students are expected to provide a note or other documentation to verify the reason(s) for their absence. Rescheduling of assessments must be negotiated by the student and the teacher on an individual basis.

School Equipment: Students are expected to keep loaned school equipment, such as musical instruments, sports equipment or textbooks, in excellent condition. Students who return school equipment which is damaged or defaced in any manner, beyond normal wear and tear, will be required to compensate the school for the repair or replacement costs of such items. Similarly, the cost of lost items must be borne by the student.

Academic Honesty: Pieces of work submitted by a student must have been completed by that student. Plagiarism, including electronic theft, misrepresentation of original work, cheating, theft of evaluation instruments, use of unauthorized aids and/or false representation of identity, the failure to cite fully any source that has been used as part of a process or product will not be tolerated and will result in appropriate penalties which may include:

- the loss of integrity for the student(s) concerned, the loss of that student's good reputation, the loss of trust that others may be willing to place in that student;
- an investigation of mitigating factors related to the incident;
- a mark of zero;
- a notation in the student's record;
- notifications to parents/guardians;
- students will need to invest time and effort to re-establish their credibility in a respectful, responsible and honest way
- submitting an additional assignment to demonstrate student understanding of curriculum expectations.
- please see student agenda for additional forms of plagiarism and consequences.

Student and Parent / Guardian Signature

Student's signature: _____	Date: _____
Parent's or Guardian's signature: _____	Date: _____