

# HALIBURTON HIGHLANDS SECONDARY SCHOOL



## Mathematics Department



### Evaluation Policy for Data Management

Course Code: MDM 4U

Level: **Grade 12, University**

Teacher Contact Information:

Credit Value: **1.0**

Teacher:

### **Course Description:**

This course enables students to broaden their understanding of statistics and probability in the real world. The first part of the course looks at the process of collecting, organizing, displaying, evaluating and making conclusions based on sets of data through the use of graphical displays and analytical tools. . The second part deals with probability and the various aspects such as independent events, conditional probability, matrices, and probability models. Throughout the course an emphasis on problem solving using these avenues is maintained. Students will consolidate their thinking through communication.

### **Strands of Study and Overall Expectations include:**

#### **Organization of Data for Analysis**

- demonstrate an understanding of the role of data in statistical studies and distinguish different types of data;
- describe the characteristics of a good sample, sampling techniques, principles of primary data collection, collect and organize data to solve a problem;

#### **Statistical Analysis**

- analyse, interpret, and draw conclusions from one variable and two variable data
- demonstrate an understanding of the applications of data used by the media and advertising industry;

#### **Counting and Probability**

- solve problems involving probability of an event or combination of events
- solve problems involving the application of permutations and combinations with probabilities.

#### **Probability Distributions**

- demonstrate an understanding of continuous probability distributions, represent them numerically, algebraically, graphically; determine expected value questions
- determine standard deviations, describe normal distributions and make connections to probabilities.

Efforts will be made to meet the individual learning needs of students in order to ensure these expectations are being met.

### **Course Outline / Units of Study:**

*Chapter*

*Approximate Length  
(number of classes)*

1. The Power of Information	9
2. In Search of Good Data	9
3. Tools for Analyzing Data	12
( ISU research )	4
ISU Presentations	4
4. a) Dealing with Uncertainty – Intro to Probability	11
4. b) Probability – Permutations and Combinations	10
5. Probability Distributions and Predictions	12
6. Solving Problems with Matrices, Graphs, and Diagrams	9

<p><b>Evaluation Structure:</b></p> <p>Knowledge/Understanding      20%</p> <p>Thinking/Inquiry                25%</p> <p>Communication                   25%</p> <p>Application                        30%</p> <p>The above is reflected both in the term work (worth 70% of the final mark) and the summative culminating activities (worth 30% of the final mark). The culminating activity is a 8% project and a 22% final exam.</p>	<p><b>Resources:</b></p> <p><b>Textbook:</b></p> <p>Mathematics of Data Management</p> <p><b>Policy Document:</b></p> <p>The Ontario Curriculum Grades 11 and 12</p>
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**Evaluation:**

Students will be assessed & evaluated according to the work produced & skills displayed. Methods of providing feedback will include assessing work in process & evaluating completed assignments, tests, co-operative learning activities, simulations and presentations. Peer & self-evaluations will also be utilized.

Student marks will be determined by evaluating process & product according to 4 categories & 4 levels. Please see the chart below for specific skills and key words used to determine student competency in the different categories.

Category	Level 1: 50-59%	Level 2: 60-69%	Level 3: 70-79%	Level 4: 80-100%
<p><b>Knowledge/Understanding</b></p> <ul style="list-style-type: none"> <li>➤ Knowledge of facts &amp; terms</li> <li>➤ Understanding of concepts &amp; relationships</li> </ul>	Limited display of knowledge, skills and ability to apply concepts	Some success in displaying knowledge, skills and application of concepts	Considerable display of knowledge skills and ability to apply concepts	Thorough understanding of concepts and ability to communicate, think creatively and apply concepts
<p><b>Thinking/Inquiry</b></p> <ul style="list-style-type: none"> <li>➤ Critical thinking skills</li> <li>➤ Creative thinking skills</li> <li>➤ Inquiry Skills</li> </ul>				
<p><b>Communication</b></p> <ul style="list-style-type: none"> <li>➤ Communication of ideas &amp; information</li> <li>➤ Use of symbols &amp; visuals</li> <li>➤ Oral &amp; written communication</li> </ul>				
<p><b>Application</b></p> <ul style="list-style-type: none"> <li>➤ Applications in familiar contexts</li> <li>➤ Transfer of concepts to new contexts</li> <li>➤ Making logical conclusions and predictions</li> <li>➤ Use of technology</li> <li>➤ Making connections</li> </ul>				

**Learning Skills:**      Students are expected to reflect the following skills throughout the course:

**Responsibility:**      Fulfils responsibilities. Completes & submits work ON TIME. Manages own behaviour.

**Organization:**      Devises & follows a plan. Establishes priorities & manages time. Uses resources to complete tasks.

**Independent Work:**      Monitors, assesses & revises plans to complete tasks & meet goals. Uses class time wisely. Follows instructions with minimal supervision.

**Collaboration:**      Accepts various roles in a group. Responds positively to ideas, opinions of others. Builds healthy peer relationships. Resolves conflict and builds consensus. Shares resources and promotes critical thinking to solve problems and make decisions.

**Initiative:**              Looks for and acts on new ideas. Innovative and takes risks. Demonstrates curiosity and an interest in learning. Approaches new tasks with a positive attitude. Advocates for all appropriately.

**Self-Regulation:**      Sets goals. Seeks help when needed. Reflects on own strengths, needs & interests. Identifies learning opportunities, choices and strategies. Perseveres and makes an effort when responding to challenges.

Students will receive the following letter grades: **E** - Excellent **G** - Good **S** - Satisfactory **N** - Needs Improvement

# HALIBURTON HIGHLANDS SECONDARY SCHOOL

## COURSE EXPECTATIONS AND EVALUATION POLICY



### Welcome to MDM 4U

#### Attendance

Regular attendance is essential for academic success in school. It is the student's responsibility to inform the teacher beforehand of any planned absences. It is the student's responsibility to get notes assignments and any other information missed while absent from class. This should be done on the student's first day back, either during class, lunch hour or after school. **Any student that is truant the last three days of a semester will not be allowed to write his/her final examination.**

#### Tests

Students must be prepared to write tests on the assigned day. Students who miss a test for no valid reason will receive a mark of zero. Any student who knows that he/she will be absent for a valid reason during a test must make arrangements with the teacher before the period in which the test is to be written. Students who miss a test for any valid reason should be prepared to write the test on the first day back at school or should make suitable arrangements with the teacher on the first day back.

#### Assignments

If a student is absent on the day work is assigned, it is his/her responsibility to get the assignment from the teacher. If a student is absent when an assignment is collected, it is to be submitted at the beginning of the period on the first day back.

#### Late Assignment Policy "Not Done is not Acceptable"

Please adhere to our new HHSS Late Assignment Policy. Students received this in their period one class on the first day of the semester.

#### Plagiarism

Plagiarism is the act of taking someone else's ideas or writing and passing it off as your own. Whatever material students consult in the preparation of essays/projects should be properly credited to the writer or source. Material may be quoted if the student identifies it as a quotation and cites the author. Copying another student's work is cheating, and is also called plagiarism. **A first offense may result in a mark of zero or an opportunity to redo/resubmit the evaluation, after consultation with the student, parent, teacher, department head and school administrator. A second offense will result in a mark of zero, a call home and the student will be referred to the Principal. A third offense will result in a mark of zero and may result in an in-school suspension.**

**Computers are tools for education; not entertainment devices. Students who are not on task may have their computer account disabled for the remainder of the day (or longer.)**

I hereby acknowledge that I am fully aware of the expectations and evaluation in MDM 4U course.

**Student Signature:** \_\_\_\_\_ **Parent's/Guardian Signature:** \_\_\_\_\_

Should it be necessary to contact you about your child's progress, it would be helpful if you would provide the appropriate information below:

Parent(s)/Guardian(s):

\_\_\_\_\_ Phone: (H) \_\_\_\_\_ (W) \_\_\_\_\_

E-mail: \_\_\_\_\_

\_\_\_\_\_ Phone: (H) \_\_\_\_\_ (W) \_\_\_\_\_

E-mail: \_\_\_\_\_

For students 18 years of age and over or who will turn 18 during the course:

I give permission for my teacher to contact my parents/guardians with regard to this course: