**Math 20-2**

**Course Outline**

2013-2014

**Course Description**

Mathematics 20-2 builds on key concepts from Mathematics 10C. Learning through problem solving is the key focus. Students are expected to develop and refine their own way for problem solving, to show their work in a variety of ways, and to use mathematical vocabulary to explain how they solve problems. Students who believe they can learn, take risks and persevere in problem solving will be successful math students.

The topics in Mathematics 20-2 include:

* Measurement: develop special sense and proportional reasoning
* Geometry: develop special sense
* Number and Logic: develop number sense and logical reasoning
* Relations and Functions: develop algebraic and graphical reasoning through the study of relations
* Research Project: develop an appreciation of the role of mathematics in society.

Students will continue to acquire the mathematical processes of communication, making connections, mental mathematics, problem solving, and visualization, and the use of technology as a tool.

For a student to have clear goals and an understanding of what they are expected to know, students can refer to ‘Achievement Standards’ in the program of Studies. <http://www.education.alberta.ca/media/655889/math10to12.pdf>

Achievement indicators are samples of how students may demonstrate their achievement of the course outcomes.

Parents may access the Alberta Education parent handbook by visiting the Alberta Education website at <http://education.alberta.ca/parents.aspx>.

**Course Schedule**

|  |  |
| --- | --- |
| **Key Learner Outcomes**  **(Unit of Study)** | **Approximate**  **Timeline** |
| 1: Proportional Reasoning | 10 classes |
| 2: Geometry | 15 classes |
| 3: Radicals | 15 classes |
| 4: Statistics | 10 classes |
| 5: Quadratics | 15 classes |
| 6: Logic | 8 classes |
| Project Work | 5 classes |
| Review and In-class final | 5 classes |

**Student Expectations**

* Regularly attend class with a positive attitude.
* Stay on task, refrain from disrupting others, complete all assigned work and seek math help when needed.
* Notify the teacher of absences in advance when possible.
  + It is the student’s responsibility to gather and review missed material and/or reschedule missed exams promptly upon his or her return.
* Maintain a supply of required materials and bring to each class.
* Use a planner to record daily assignments and upcoming assessments.

**Required Materials**

* Binder, complete with lined paper, graph paper, and four dividers
* Duotang (for Summative Unit Exams)
* Pencils and Erasers
* Red Pens
* Geometry Set
* Graphing Calculator (TI-Nspire or TI 84+)
* Textbook (*Principles of Mathematics 11*, school-provided)

**Student Assessment**

Elk Island Public Schools’ Assessment Policy requires that teachers “ensure ongoing, meaningful, consistent and accurate assessment for all students.”

Student learning is assessed in three ways:

1. Assessment *as* Learning

* Purpose: Encourage student self-assessment and reflection
* Measures: “I Can” Statements, Pre Test, Self Checks

2. Assessment *for* Learning (Formative)

* Purpose: Check for student learning and adjust instruction
* Measures: Homework, Group Work

3. Assessment *of* Learning (Summative)

* Purpose: Collect evidence of mastery of curricular outcomes to compose 100% of the student’s grade
* Measures: Assignments, Projects, Quizzes, Unit Exams, Final

**Summative Evaluation**

The summative evaluation of the students in Math 20-2 will be based on their performance within each of the units of study. Marks that may be used to calculate their final mark include:

* Quizzes
* In Class Assignments
* In Class Projects
* Unit Exams
* Final Exams

A unit exam will be given at the end of every unit, which will be used to determine their course mark. An end-semester replacement exam will be given in Math 20-2. This practice final exam given at the end of the course can replace a unit exam mark which was lower than the mark achieved on the practice final.

**Math Help**

It is the goal of every teacher to help students succeed in math. Students should look for support options to help them succeed. Some of these include:

* Peer Tutoring
* Math Help
* Individual Tutors for Hire

Please discuss these options with your teacher for more information.

**Absences**

Regular attendance is required if the student expects to do well in this course. All students are responsible for catching up on work covered during their absence(s). It is suggested for the student to arrange to have a study buddy who can pick up missed assignments, and inform the student of any work missed. Mrs. Henry’s eTeacher page will also be updated daily for students to stay connected to the classroom while they are absent. If possible, inform the teacher in advance of a planned absence.

**Student Information Sheet**

*(To be completed and returned to the teacher.)*

Student Name: Class:

Phone Number (Home):

Parent/Guardian Name:

Relationship to Student:

Phone Number (Work):

Phone Number (Cell):

Email:

Parent/Guardian Name:

Relationship to Student:

Phone Number (Work):

Phone Number (Cell):

Email:

My goal for Math 20-2 is to

My goal is to achieve a mark of % in Math 20-2.

Signed (Student):

Signed (Parent/Guardian):

Signed (Parent/Guardian):