

**Principles of Mathematics 12** (eak ... 090709)

Content	Teaching Strategies/Learning Activities	Assessment	B.C. Curriculum Organizer Linkage
<p><b>A. Functions and Relations</b></p> <p>1. Functions and their Transformations 2. Exponential Functions and Logarithms</p>	<p>1. Text used: <i>Mathematics 12 (Addison-Wesley WCE)</i> and <i>Mathematics 12 Independent Study Guide</i></p> <p>(Chapters 1 and 2)</p> <p>Lessons as noted in the course timeline (see page 4)</p> <p>2. Students are encouraged to purchase: <i>Student Handbook: Theory &amp; Problems for Senior High Math</i></p> <p>3. Homework and review assignments as tentatively noted in the course timeline</p> <p>4. Handouts and problems (see note on page 4):</p> <p>Functions Math Mouse Arithmetic S&amp;S Geometric S&amp;S Continuous Growth/Decay</p>	<p>1. Assigned work will be reviewed at the beginning of the next class. After this review, homework will be collected and checked (randomly) at least once a week.</p> <p>2. Brief quizzes as tentatively noted in the course timeline.</p> <p>3. Handouts and problems collected and checked upon completion.</p> <p>4. Chapter end tests:</p> <p style="padding-left: 40px;">Chpt. 1 (Sept. 24) Chpt. 2 (Oct. 19)</p> <p>5. Class participation and attendance at tutorials.</p>	<p style="text-align: center;">Space and Shape B1-6</p> <p style="text-align: center;">Patterns and Relations A1-6,13-15</p>

## Principles of Mathematics 12 (continued)

Content	Teaching Strategies/Learning Activities	Assessment	B.C. Curriculum Organizer Linkage
<p><b>B. Trigonometry</b></p> <p>1. Trigonometric Functions of Angles            2. Trigonometric Functions of Real Numbers            3. Trigonometric Equations and Identities</p>	<p>1. Text used: <i>Mathematics 12 (Addison-Wesley WCE)</i> and <i>Mathematics 12 Independent Study Guide</i></p> <p>(Chapters 3 - 5)</p> <p>Lessons as noted in the course timeline</p> <p>2. Students are encouraged to purchase: <i>Student Handbook: Theory &amp; Problems for Senior High Math</i></p> <p>3. Homework and review assignments as tentatively noted in the course timeline</p> <p>4. Problems, worksheets and calculator laboratories:</p> <p>30-60-90 Trig            Sinusoidal Waves            Trig Equations            Trig Identities</p>	<p>1. Assigned work will be reviewed at the beginning of the next class. After this review, homework will be collected and checked (randomly) at least once a week.</p> <p>2. Brief quizzes as tentatively noted in the course timeline</p> <p>3. Problems, worksheets and calculator laboratories collected and checked upon completion.</p> <p>4. Chapter end tests:</p> <p>Chpt. 3 (Oct. 29)            Chpt. 3&amp;4 (Nov. 23)            Chpt. 5 (Dec. 7)</p> <p>5. Class participation and attendance at tutorials.</p> <p>6. <b>Mid-Term</b> Exam (Nov. 12)</p>	<p>Patterns and Relations            A7-12,16-18</p>

## Principles of Mathematics 12 (continued)

Content	Teaching Strategies/Learning Activities	Assessment	B.C. Curriculum Organizer Linkage
<p><b>C. Statistics and Probability</b></p> <p>1. Permutations and Combinations</p> <p>2. Probability &amp; Statistics</p>	<p>1. Text used: <i>Mathematics 12 (Addison-Wesley WCE)</i> and <i>Mathematics 12 Independent Study Guide</i></p> <p>(Chapters 6 - 8)</p> <p>Lessons as noted in the course timeline</p> <p>2. Students are encouraged to purchase: <i>Student Handbook: Theory &amp; Problems for Senior High Math</i></p> <p>2. Homework and review assignments as tentatively noted in the course timeline</p> <p>3. Handouts and problems:</p> <p>Poker Hands Cupcakes The Birthday Problem Binomial Distribution Calculator</p>	<p>1. Assigned work will be reviewed at the beginning of the next class. After this review, homework will be collected and checked (randomly) at least once a week.</p> <p>2. Brief quizzes as tentatively noted in the course timeline</p> <p>3. Handouts and problems collected and checked upon completion.</p> <p>4. Chapter end tests:</p> <p>Chpt. 6 (Dec. 17) Chpt. 7&amp;8 (Jan. 19)</p> <p>5. Class participation and attendance at tutorials.</p> <p>6. <b>PROVINCIAL</b> Exam (Jan. 26)</p>	<p>Statistics &amp; Probability C1-10</p>

## Assessment and Evaluation (School based grade)

Tests	40%
Classwork*	40%
School mid-term exam	20%

\* class and home work, quizzes, worksheets, participation etc.

## Graphing Calculators

A graphing calculator is **essential** for the Principles of Mathematics 12 course and examination. We will be using the Texas Instrument TI-83 family of calculators in class. **Please note** that starting in the 2004-05 school year the Provincial Examination (as well as the school based FINAL Exam for those not writing the Provincial) will contain a non-calculator component.

## Problem Solving

There will be no Problem Set for the Principles of Mathematics 12 course in the 2009-10 school year; however, the emphasis on problem solving continues to be important in this course.

Although there is no specific percentage weighting given to Problem Solving within the Table of Specifications for the provincial examination, this strand will be assessed within the other strands. The examination will contain a number of multiple-choice or written-response questions which draw on ideas from more than one topic area and test general problem-solving strategies.

Selected questions from the 2001 problem set **and others** chosen by the teacher are incorporated throughout the course. Please see the course timeline for more details regarding these questions.

## Principles of Mathematics 12 Course Timeline

The course timeline can be found at the following internet address:

<http://members.shaw.ca/ekwasniewski>

## Explanation of Work Ethic Indicators

### **G**

You arrive to class on time, prepared with all your supplies, notebooks, texts and other related materials. All your work (home and in class) is completed to the best of your ability. You are making every effort to meet deadlines and due dates and are doing your best to keep your notebooks up-to-date and in good order. During class you are attentive and focussed on the various tasks, assignments and projects. You work well in individual and group situations and you appear to be doing your best. You willingly participate and share ideas. You treat yourself, your peers and adults with the respect inherent in the Gospel values. You display good work habits and effort in all that you do.

### **S**

Most of the time you arrive to class on time and are prepared with all your supplies, notebooks, texts and other related materials. Most of your work (home and in class) is completed to the best of your ability. Although you occasionally miss handing in an assignment, you are making an honest effort to meet deadlines and due dates. You usually do your best to keep your notebooks up-to-date and in good order. During class you are attentive and focussed on the various tasks, assignments and projects with only occasional lapses. You work fairly well in individual and group situations and, on most occasions, appear to be doing your best. You are willing to participate and share ideas. You treat yourself, your peers and adults with the respect inherent in the Gospel values. You display satisfactory work habits and effort most of the time.

### **N**

You frequently arrive unprepared for class. You are sometimes missing supplies, notebooks, texts and other related materials. On occasion, you are reluctant to put forth the effort to keep your materials and assignments organized. Homework and assignments are often incomplete or poorly done. During class, you are sometimes unfocussed and easily distracted. You participate infrequently in class discussions. You sometimes treat yourself, your peers and adults with a lack of the respect inherent in the Gospel values. Your work habits need to improve.