



DEPARTMENT OF HUMAN SERVICES

COURSE OUTLINE – FALL 2015

TA1233 – Math Skills and Concepts 1(2.5-0-0) 15 HRS

INSTRUCTOR: Cassandra Kostuk **PHONE:** 780-539-2041
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OFFICE HOURS: Thursdays, 10 a.m. – 1p.m. or by appointment

DELIVERY MODE(S): Classroom instruction will be a combination of lecture and small and large group work. Audio-visual material and additional resources will supplement reading package.

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

Package of TA 1233 modules, 2008
Basic Calculator (**Calculator may be used for module 2 only**)

CALENDAR DESCRIPTION:

This course covers the development, review, and reinforcement of math skills and concepts up to beginning algebra. As the student progresses through the course, he/she will become more comfortable with math concepts that may be encountered while working with children in an elementary school setting.

LEARNING OUTCOMES:

This course intends to provide students with:

- Development, review, and reinforcement of math skills and concepts up to beginning algebra.
- The opportunity to become more comfortable with math concepts that may be encountered while working with children in an elementary school setting.

COURSE OBJECTIVES:

Upon completion of this course students will demonstrate the ability to do the following:

1. Basic Arithmetic

- Give the place value of digits in standard notation.
- Convert between standard notation and word names.
- Add two or more whole numbers.
- Subtract whole numbers.
- Add and subtract using decimal notation.
- Multiply and divide whole numbers.
- Multiply and divide using decimal notation.
- From a group of fractions, identify the proper fractions, improper fractions, and mixed numbers.
- Change whole number or fractions to equivalent fractions with the indicated denominator.
- Add and subtract fractions with common denominator or different denominators.
- Multiply and divide fractions.
- Write a fraction as a decimal or a decimal as a fraction.
- Solve applied problems involving addition, subtraction, multiplication, or division for whole numbers, decimal notation, or fractions.

2. Percent

- Write a fraction with a denominator of 100 as a percent.
- Rewrite a given statement using the percent notation.

- Write a percent as a decimal and vice-versa.
- Change a percent to a fraction and vice-versa.
- Translate a percent problem into an equation.
- Identify the parts of percent proportion such as percent, base and amount.
- Use the percent proportion to solve percent problems.
- Solve general applied percent problems.
- Solve applied problems when percent is added such as sales tax, commission, etc.

3. Measurement

- Understand prefixes in metric units.
- Convert from one metric unit of length to another.
- Convert from one metric unit of mass to another.
- Convert between metric units of volume.
- Convert between units of time.
- Get familiar with Fahrenheit and Celsius degrees of temperature.
- Solve real life word problems involving metric units, or time.

COURSE SCHEDULE/TENTATIVE TIMELINE:

Date	Material to be Covered	Assigned work
November 4 th	Introduction Course outline Basic arithmetic	Section 1 –place value Section 2- addition and subtraction of whole numbers and decimals
November 6 th	-Place value -Addition, subtraction, multiplication, division of whole numbers decimals and fractions -Interchanging fractions and decimals -Word problems	Section 3-multiplication Section 4- division Section 5-fractions Section 6-addition and subtraction of fractions

November 13 th	-Place value -Addition, subtraction, multiplication, division of whole numbers decimals and fractions -Interchanging fractions and decimals -Word problems	Section 7-Multiplication and division of fractions Section 8- Interchanging decimals and fractions Section 9- word problems Review
November 18 th	Test #1	
November 20 th	Percent -Meaning of percent -Changing percent to decimals/fractions -changing decimals/fractions to percent -The percent proportion -application of percent	Section 1- Meaning of Percent Section 2 - Changing percent to decimals Section 3 – Changing decimals to percent Section 4- Changing percent into fractions
November 25 th	Percent -Meaning of percent -Changing percent to decimals/fractions -changing decimals/fractions to percent -The percent proportion -application of percent	Section 5- changing fractions into percent Section 6- review of proportions Section 7 – the percent proportions
November 27 th	Percent -Meaning of percent -Changing percent to decimals/fractions -changing decimals/fractions to percent -The percent proportion -application of percent	Section 8 – Solving percent proportions Section 9 – applications of percent Review
December 2 nd	Percent test	
December 4 th	Measurement -metric units of linear measurement, mass, liquid volume, time and temperature -changing of metric units	Section 1- linear measurement Section 2 – changing units of linear measurement Section 3- metric units of mass Section 4- changing units of metric mass

December 9 th	Measurement -metric units of linear measurement, mass, liquid volume, time and temperature -changing of metric units	Section 5- Metric units of liquid volumes Section 6- changing units of liquid volume Section 7 – time Section 8 temperature
December 11 th	Measurement test	

EVALUATIONS:

Your final mark is determined by:

Module 1 Basic Arithmetic Test 40%

Module 2 Percent Test 30%

Module 3 Measurement Test 30%

GRADING CRITERIA:

Please note: A minimum grade of C- is required to pass this course.

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A⁺	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A⁻	3.7	80 – 84	FIRST CLASS STANDING
B⁺	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B⁻	2.7	70 – 72	
C⁺	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C⁻	1.7	60 – 62	
D⁺	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

STUDENT RESPONSIBILITIES:

Refer to the College Policy on Student Rights and Responsibilities at www.gprc.ab.ca/d/STUDENTRIGHTSRESPONSIBILITIES

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the College Student Misconduct: Academic and Non-Academic Policy at www.gprc.ab.ca/d/STUDENTMISCONDUCT

**Note: all Academic and Administrative policies are available at
www.gprc.ab.ca/about/administration/policies/

UNIVERSITY TRANSFER (If applicable):

**** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.**

Please refer to the Alberta Transfer guide for current transfer agreements:
www.transferalberta.ca