



COURSE IMPLEMENTATION DATE: January 2005
 COURSE REVISED IMPLEMENTATION DATE: September 2012
 COURSE TO BE REVIEWED: October 2017
(six years after UEC approval) *(month, year)*

OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.
 Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

MATH 205	Science/Mathematics & Statistics	4
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS
Math for the Elementary School Teacher II		
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

This course will continue the aims of MATH 105 by providing a direct experience of mathematics and by encouraging students to explore reasoning strategies in solving problems appropriate to the elementary school curriculum. This course is designed to develop confidence in verbalizing mathematics to one's peers. Topics include strategies in problem solving, descriptive statistics, an introduction to probability, coordinate geometry, elementary logic, modular arithmetic, and an introduction to graph theory.

PREREQUISITES: MATH 105 with a C or better
 COREQUISITES:
 PRE or COREQUISITES:

SYNONYMOUS COURSE(S):

- (a) Replaces: _____
- (b) Cross-listed with: _____
- (c) Cannot take: _____ for further credit.

SERVICE COURSE TO: *(department/program)*

TOTAL HOURS PER TERM: 75

STRUCTURE OF HOURS:

Lectures: 60 Hrs
 Seminar: _____ Hrs
 Laboratory: _____ Hrs
 Field experience: _____ Hrs
 Student directed learning: _____ Hrs
 Other (specify): Individual and group presentations 15 Hrs

TRAINING DAY-BASED INSTRUCTION:

Length of course: _____
 Hours per day: _____

OTHER:

Maximum enrolment: 24
 Expected frequency of course offerings: Every second year
(every semester, annually, every other year, etc.)

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only) Yes No
 WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department) Yes No
 TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE: Yes No

Course designer(s): <u>Jane Cannon</u>	Date approved: <u>January 31, 2011</u>
Department Head: <u>Greg Schlitt</u>	Date of meeting: <u>February 25, 2011</u>
Supporting area consultation (Pre-UEC)	Date approved: <u>September 23, 2011</u>
Curriculum Committee chair: <u>Norm Taylor</u>	Date approved: <u>October 7, 2011</u>
Dean/Associate VP: <u>Ora Steyn</u>	Date of meeting: <u>October 28, 2011</u>
Undergraduate Education Committee (UEC) approval	

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

1. Use appropriate problem-solving strategies accurately and effectively in order to structure clear and concise solutions to problems related to the elementary school curriculum; to verbalize these solutions in a classroom setting.
2. Perform the necessary computations in order to demonstrate an understanding of descriptive statistics, introduction to probability, coordinate geometry, logic, modular arithmetic and graph theory.
3. Create and/or use models that represent mathematical concepts.
4. Organize and present a coherent and focused unit of study appropriate within the elementary curriculum.

METHODS: *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Lectures are balanced with problem sessions, discussion sessions, individual presentations and group activities. Evaluation will include tests, assignments, and a three-hour comprehensive exam.

METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Examination(s) Portfolio assessment Interview(s)

Other (specify): Course challenge. Please see <http://www.ucfv.ca/math/challenge.htm> for the departmental challenge policy.

PLAR cannot be awarded for this course for the following reason(s):

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

The text is chosen by a departmental curriculum committee. Recent text:
Musser, Burger, Peterson. 2008. Mathematics for Elementary Teachers. 8th ed. Wiley.

SUPPLIES / MATERIALS:

Calculator, compass, and protractor

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

Assignments, projects	40%
Tests	30%
Final exam	30%

A student must obtain at least 40% on the final exam in order to receive credit for this course.

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

- Patterns and problem solving strategies
- Descriptive statistics
- Introduction to probability
- Coordinate geometry
- Elementary logic
- Modular arithmetic
- Introduction to graph theory