

Notre Dame Catholic High School
Catholic District School Board of Eastern Ontario

COURSE TITLE: College and Apprenticeship Mathematics, Grade 12,
COURSE CODE: MAP 4C
LEVEL OF DIFFICULTY: College Preparation
AREA OF STUDY: Mathematics
PREREQUISITE: Mathematics of Personal Finance, Grade 11, College Preparation **OR**
Functions, Grade 11, University/College Preparation
OR Functions and Relations, Grade 11, University Preparation
NUMBER OF HOURS: 110
FACILITATORS: Mr. G. Cordick
WRITERS: The Math Department
DATE: September, 2006
MINISTRY GUIDELINES: The Ontario Curriculum, Mathematics, Grade 11 &12
TEXT: Mathematics: Preparing for College and Apprenticeship,
(Addison-Wesley)

COURSE DESCRIPTION:

This course equips students with the mathematical knowledge and skills they will need in many college programs. Students will use statistical methods to analyse problems; solve problems involving the application of principles of geometry and measurement to the design and construction of physical models; solve problems involving trigonometry in triangles; and consolidate their skills in analysing and interpreting mathematical models.

UNITS OF STUDY:

Applications of Statistics: students will...

- collect, analyse, and evaluate data involving one variable;
- collect, analyse, and evaluate data involving two variables;
- analyse significant problems or issues, using statistics;
- evaluate the validity of the use of statistics in the media.

Applications of Geometry, Measurement, and Trigonometry: students will...

- demonstrate an understanding of the relationship between three-dimensional objects and their two-dimensional representations;
- solve problems involving measurement;
- solve problems involving trigonometry in triangles.

Analysis of Mathematical Models: students will...

- interpret and analyse given graphical models;
- interpret and analyse given formulaic models;
- interpret and analyse data given in a variety of forms.

How This Course Supports the Ontario Catholic School Graduate Expectations:

This course encourages the Catholic learner to promote growth towards her/his personal responsibilities, faith, and moral and ethical decision making in order to make better and more informed career choices. The classroom environment should foster mutual and self-respect and individual self-discipline, along with the practice of cooperative learning and the ability to work in groups or as part of a team. Students develop an awareness of theirs and others' strengths, along with tolerance and compassion for the weaknesses and inabilities of others. Collectively, these expectations are significant to our goal of our students becoming well-rounded apprentices, professionals, employees, or business leaders in society.

COURSE EVALUATION:

Student achievement will be based on the achievement chart categories outlined below and individual demonstration of the specific expectations. All major assessment will be evaluated by levels. Grades will be determined using the students' most consistent and most recent levels of achievement. For purposes of reporting, the percentages grade range will correspond to the following levels as defined by the board:

The Achievement Chart for Mathematics

The Achievement Chart identifies four categories of knowledge and skills in Mathematics:

| | |
|------------------------------------|--|
| Knowledge and Understanding | The degree to which the student demonstrates understanding of the concepts |
| Application | The degree to which the student can apply proper mathematical concepts and procedures. |
| Thinking, Inquiry, Problem Solving | The degree to which the student utilizes proper problem solving techniques, strategies, resources, technology, and tools |
| Communication | The degree to which the student represents information properly; written, graphical, chart, numerical, and symbolic forms. Effective communication implies timeliness, presentation, and completeness. |

According to the provincial standard for assessment, Level 3 is the provincial standard, Level 4 indicates a level of achievement beyond the standard, Level 2 indicates the student is slightly below the provincial standard, and Level 1 indicates limited understanding of the material. The achievement chart helps to determine the students' most consistent level of achievement of the curriculum expectations as reflected in his or her course work.

| Level | Pegged Mark |
|-------|-------------|
| 4++ | 100 |
| 4++ | 98 |
| 4+ | 94 |
| 4 | 90 |
| 4 | 86 |
| 4- | 82 |
| 3+ | 79 |
| 3 | 75 |
| 3- | 72 |
| 2+ | 69 |
| 2 | 65 |
| 2- | 62 |
| 1+ | 59 |
| 1 | 55 |
| 1- | 52 |

Summative Evaluation (70%)

Knowledge and Understanding
Communication
Thinking and Inquiry
Application

Final Assessment (30%)

Culminating Project (15%)
Final Exam

CLASS EXPECTATIONS:

Please show this contract to your parents/guardians. Ask that they read and complete the portion below. Return it tomorrow still attached to the rest of your course outline.

Student Section:

I, _____ (student) have read and understood the expectations outlined in the Grade 12 College and Apprenticeship Mathematics Course Outline.

Student Signature: _____

Parents/Guardian Section:

Please be aware of the expectations set for your son/daughter in this course. If you have any questions, please do not hesitate to contact me at NDCHS at 253-4700 or by email at Glen.Cordick@cdsbeo.on.ca. Please fill in the applicable information below.

| | |
|-----------------------------|-----------------------------|
| Parent/Guardian Name: _____ | Parent/Guardian Name: _____ |
| Signature: _____ | Signature: _____ |
| Home Phone number: _____ | Home Phone number: _____ |
| Work Phone number: _____ | Work Phone number: _____ |

Comments: _____

Sincerely,

Glen Cordick

MAP 4C CLASSROOM EXPECTATIONS:

1. Adhere to all school policies including attendance, dress, punctuality and behaviour.
2. You are responsible to bring the following materials to EVERY CLASS:

| | |
|-------------------------|------------------------------|
| binder with extra paper | pen and pencil (with eraser) |
| textbook | calculator |
| centimeter ruler | |
3. I expect notebooks and textbooks to be organized and free from graffiti. All work should be clearly titled and dated. Page numbers and question numbers should be clearly indicated.
4. When homework is assigned it is to be completed for the next class – no excuses. If you foresee difficulties, you are required to come for extra help. I am available for extra help at lunch, before and after school. I encourage you to ask questions.
5. I do not tolerate copying in any form. A mark of zero will be assigned for copied work.
6. If you are absent, YOU are responsible to catch up on work missed. Absence for a test/quiz/performance task results in a zero, unless proper documentation is provided. I must be notified ahead of time for any exceptional circumstances causing you to be absent on these days.
7. RESPECT, RESPECT, RESPECT! Respect your classmates and your teacher. Unacceptable behavior will not be tolerated. Respect others' property. Return borrowed materials, clean up after yourself, do not deface property. Respect yourself. Be responsible and organized.
8. Students may, for legitimate reasons, negotiate an extension or due date change with the teacher prior to the original due date (Notre Dame Contract). Approval for such a change will be at the discretion of the teacher. Computer printing problems will not be accepted as legitimate reasons for late assignments. If such a situation should occur the student must either present a hand written assignment or a computer disc that the teacher can read on a computer compatible with the Notre Dame computer system. This must be done on the day the assignment is due. This policy does not include renegotiation of culminating activity due dates.

I, _____ (student) have read and understood the expectations outlined in the MAP 4C Outline.

Parents/Guardians: Please be aware of the expectations set for your son/daughter in this course. If you have any questions, please do not hesitate to contact me at Notre Dame: 253-4700.

Sincerely,
Mr. G. Cordick

Parent/Guardian Signature : _____

Date: _____

Daytime Phone Number: _____

Comments: