

St. Clair Catholic District School Board

STUDENT INFORMATION SHEET / OUTLINE OF COURSE OF STUDY

School	St. Patrick's High School
Department	Mathematics
Course Title	Functions (MCR 3U)
Grade	11
Course Type	University
Teacher(s)	Mr. Van Dinther
Department Head	Mrs. Kirchmair
Credit	one full
Ministry Document	Mathematics Grades 11 (revised)
Prerequisite	Grade 10 Academic

Course Description

This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions; represent functions numerically, algebraically, and graphically; solve problems involving applications of functions; investigate inverse functions; and develop facility in determining equivalent algebraic expressions. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

1. Expectations re: Learning Skills

It is expected that students will demonstrate the following learning skills (this is not intended to be an exhaustive list). Learning skills will be assessed according to criteria which have been clearly communicated to students and will be reported separately from student achievement of the curriculum expectations. The student's demonstrated learning skills in each course will be evaluated using the four-point scale

(E - Excellent, G - Good, S - satisfactory, N - Needs Improvement)

- Strong work habits during class time
- Completed homework and assignments
- Organizational skills on a daily basis
- Initiative in all areas of the course
- Independent learning ability
- Team work ability
- Frequent review of concepts and skills

2. Course Breakdown & Assessment and Evaluation Strategies:

Unit	Unit Title / Description	Assessment & Evaluation Strategies
Unit 1	Functions	checklists, assignments, tests
Unit 2	Transformations of Functions	checklists, assignments, tests
Unit 3	Rational Functions	checklists, assignments, tests
Unit 4	Exponential Functions	checklists, assignments, tests
Unit 5	Trigonometry Part 1	checklists, assignments, tests
Unit 6	Trigonometry Part 2	checklists, assignments, tests
Unit 7	Discrete Functions	checklists, assignments, tests
Unit 8	Financial Applicatons	checklists, assignments, tests

3. Teaching / Learning Strategies:

Instruction in this course will include but not be limited to the following:

- use of technology tools: graphing calculators, computers
- presentation of homework solutions to class
- whole class activities
- pairs activities
- group work

4. Assessment and Evaluation:

Student achievement of the learning expectations will be evaluated according to the following breakdown.

Categories of the Achievement Chart	Weighting (%)	
	Term Evaluation	Final Evaluation Activity / Exam
Knowledge / Understanding	40	40
Thinking	15	15
Application	35	35
Communication	10	10
Final Mark	70%	30%

5. Learning Resources:

Textbook: Mathematics 11, Nelson Publishing

6. School, Department and Classroom policies:

- use of student handbook: for reference and for time management
- be prepared for class: paper, pencil, graph paper, calculator
- keep work complete and up to date
- correct all tests and assignments