

991 St. Clair Ave. West
 Toronto, Ontario M6E 1A3
 Telephone: (416) 393-1780
 Fax: (416) 393-8169

Website: <http://schools.tdsb.on.ca/oakwoodci/>

Course of Study: Foundations for College Mathematics

| | | | |
|-----------------------------------|---|------------------------------------|--------|
| Academic Year: 2019 – 2020 | | Teacher Name: | |
| Department: Mathematics | | Department Head: Mr. Burtch | |
| Date developed: June 2009 | | Revised: | |
| Course Title | Foundations for College Mathematics | Course Code | MAP4C1 |
| Prerequisite | Foundations for College Mathematics, Grade 11, College Preparation, or Functions and Applications, Grade 11, University/College Preparation | Grade | 12 |
| Level | College | Credit Value | 1.0 |

| Course Description | | |
|---|---------------------------|---|
| Ontario Ministry of Education Document: | | |
| This course enables students to broaden their understanding of real-world applications of mathematics. Students will analyse data using statistical methods; solve problems involving applications of geometry and trigonometry; solve financial problems connected with annuities, budgets, and renting or owning accommodation; simplify expressions; and solve equations. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for college programs in areas such as business, health sciences, and human services, and for certain skilled trades. | | |
| Textbook: To Be Determined | | |
| Instructional Strands/Units | | |
| Strand/Unit Titles | Approx. Time Spent | Overall Expectations/Unit Description |
| Mathematical Models | 2 Months | <ul style="list-style-type: none"> • evaluate powers with rational exponents, simplify algebraic expressions involving exponents, and solve problems involving exponential equations graphically and using common bases; • describe trends based on the interpretation of graphs, compare graphs using initial conditions and rates of change, and solve problems by modelling relationships graphically and algebraically; • make connections between formulas and linear, quadratic, and exponential relations, solve problems using formulas arising from real-world applications, and describe applications of mathematical modelling in various occupations and applications. |

| Instructional Strands/Units (Cont'd) | | |
|---|---------------------------|---|
| Strand/Unit Titles | Approx. Time Spent | Overall Expectations/Unit Description |
| Personal Finance | 2 Months | <ul style="list-style-type: none"> • demonstrate an understanding of annuities, including mortgages, and solve related problems using technology; • gather, interpret, and compare information about owning or renting accommodation, and solve problems involving the associated costs; • design, justify, and adjust budgets for individuals and families described in case studies, and describe applications of the mathematics of personal finance. |
| Geometry and Trigonometry | 2 Months | <ul style="list-style-type: none"> • solve problems involving measurement and geometry and arising from real-world applications; • explain the significance of optimal dimensions in real-world applications, and determine optimal dimensions of two-dimensional shapes and three-dimensional figures; • solve problems using primary trigonometric ratios of acute and obtuse angles, the sine law, and the cosine law, including problems arising from real-world applications, and describe applications of trigonometry in various occupations. |
| Data Management | 2 Months | <ul style="list-style-type: none"> • collect, analyse, and summarize two-variable data using a variety of tools and strategies, and interpret and draw conclusions from the data; • demonstrate an understanding of the applications of data management used by the media and the advertising industry and in various occupations. |

| Student Evaluation Criteria | | | |
|------------------------------------|-----------|---------------------------------------|------|
| Term Work | | Culminating Activities | |
| Categories | | | |
| Knowledge/Understanding (K/U) | %15 – 20 | Final Exam | 20 % |
| Inquiry/Thinking (T/I) | % 15 – 20 | Culminating Activity | 10 % |
| Communication (C) | % 15 – 20 | | |
| Application (A) | % 15 – 20 | | |
| Term Total 70% | | Culminating Activity Total 30% | |

| | First Report | Second Report | Interim Report | Final Report |
|----------------------------------|--------------|---------------|----------------|---------------|
| Progress Reports | | | | |
| Report Cards | Nov 24, 2017 | Feb 13, 2018 | Apr 19, 2018 | June 30, 2018 |
| Parent/Teacher Interviews | Nov 30, 2017 | Feb 15, 2015 | | |

Assessment of Learning Skills

The 5 learning skills, independent work, teamwork, organization, homework and initiative, will be assessed using a variety of techniques including, but not limited to, homework checks, lab participation, group work/research, class involvement, cooperative activities and independent work

Assessment and Evaluation Tools

| <i>Knowledge/Understanding</i> | <i>Thinking/Inquiry and Application</i> | <i>Communication</i> |
|---------------------------------------|--|--|
| Quizzes | Investigations | Discussions |
| Tests | Projects | Participation |
| In-Class Assignments | Problem Solving | Written and oral communication of mathematical ideas |
| Homework | Real-World Applications | |
| | Explorations | |
| | Word Problems | |

Communication

| | |
|------------------------------|---|
| <i>Parents</i> | <i>Contact the Math department at 393-1790 ext. 20038</i> |
| <i>Students</i> | <i>Contact your teacher in person</i> |
| <i>Extra help</i> | <i>By arrangement with your teacher</i> |
| <i>School Website</i> | <i>http://schools.tdsb.on.ca/OakwoodCI</i> |

Department Policies

Success Plan

1. Come to class every day, on time, with a pencil, eraser, ruler , scientific calculator and binder.
2. Listen to, and participate in, the lesson.
3. Complete the work assigned in class.
4. Ask for help when you need it.
5. Help your classmates.
6. Complete all evaluations to the best of your ability.

Textbooks

Students will be issued a textbook for use during the school year and are expected to bring it to class each period. Replacement cost \$80

Evaluation

Evaluation takes a balanced approach (see above) to the 4 categories of achievement (K/U, T/I, C, A) and blends these so that most evaluation tasks include 2 or more of the categories. For purposes of simplification, the final mark will be calculated as follows:

| | |
|---|--------------------|
| <i>Course Work, including: Tests, Quizzes, Assignments, etc. (K/U, C, A)</i> | <i>70%</i> |
| <i>Culminating Activities (incl. Final Exam) (K/U, T/I, C, A)</i> | <i>30 %</i> |

Teachers will communicate to students the approximate value of assignments and their placement in the evaluation chart.

Attendance, Punctuality and Work Habits

It is expected that students arrive punctually to all classes and that attendance is regular. When students are absent, it is the responsibility of the student to find out what was missed. This should be done at an appropriate time such as before school on the date of return. Students are not to disrupt the learning of others by catching up on missed work during class. This includes requests for missed/lost handouts. All such matters should be dealt with before class commences.

Homework will be assigned on a regular basis. Students are expected to demonstrate initiative and self-direction in their approach to homework. Failure to do homework will adversely affect a student's ability to achieve high marks.

Coursework – Tests, Assignments, etc.

Students are expected to write tests/quizzes on the set date. Students must make arrangements with the teacher in advance of the test date if they know that they will be away. In such cases, the student is expected to make arrangements with their teacher to make up the missed evaluation. If students are absent for an officially recognized excuse, they must present documentation and the teacher will set a date for an alternative test to be written.

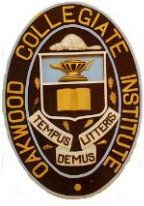
Assignments – each assignment has a due date. Assignments are due at the start of the period on the due date, unless otherwise specified. Late assignments will be accepted until the ultimate due date. This is usually the date on which marked assignments are returned. After this date, assignments may not be submitted and the student will receive a zero. Teachers may use a variety of techniques to encourage students to submit late work. This may include, if necessary, a mark reduction of 10%.

Exams and Culminating Activities

Exams and culminating evaluations must be done on the due date. It is usually not possible to reschedule these evaluations or to provide alternative assignments. Therefore a mark of zero will be assigned unless suitable documentation (medical certificate, etc.) is received. In such cases, the teacher, in consultation with colleagues and the administration, will determine an appropriate mark.

Course:

Teacher:



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COURSE: _____

TEACHER: _____

Please acknowledge that you have read this outline:

| | |
|---------------------|---------------------------------|
| <i>Date:</i> | <i>Parent Signature</i> |
| <i>Date:</i> | <i>Student Signature</i> |
| | |

Please return this to _____ by _____