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# Math 150 / Pre-Calculus Mathematics

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| **TERM:** 2015-2016 |  |
| **CREDIT HOURS:** 3 | **CARNEGIE UNITS: 1** |
| **CLASS MEETING TIME:** 2nd period  | **LOCATION:** MCS |
| **INSTRUCTOR NAME:** J. Leaver | **OFFICE PHONE:** n/a |
| **OFFICE ADDRESS:** n/a | **EMAIL ADDRESS:**  jleaver@margaretvillecs.org |

**COURSE DESCRIPTION:** This is the first year of an integrated approach of Pre-Calculus concepts into the MCS Physics course. This integrated course is inquiry based where students will have all the Pre-Calculus and Physics concepts needed to solve open-ended, real-life problems. The course is designed so students will be successful on the NYS Physics Regents Exam as well as to meet the requirements for college credit in PreCalculus.

**PRE-REQUISITES:** High School Algebra II-Trigonometry Course

**STUDENT LEARNING OUTCOMES:**

1. Represent and manipulate algebraic and trigonometric functions and relations algebraically, graphically, and numerically, including partial fraction decomposition and finding zeros of functions.
2. Engage in algebraic and trigonometric problem solving and modeling.
3. Synthesize algebraic and trigonometric facts and laws into proofs.
4. Analyze and manipulate equations between various two dimensional systems such as rectangular, polar, vector representations, conic systems and axes manipulations, as well as solving equations in these systems.
5. Investigate and perform summations and predictions on geometric, algebraic and binomial sequences and series.

**COURSE OBJECTIVES:** This course is intended primarily to prepare students for a course in Calculus and to successfully solve real-life physics problems using mathematics.. It can also be used for general Mathematics credit. This course will provide students with a working knowledge of elementary functions and their graphs, including polynomial, rational, logarithmic, exponential, and trigonometric functions, and to become proficient in the algebra of functions.

**GRADING CRITERIA:**

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| Course Average | Course Letter Grade |
| 92.5-100 | A |
| 89.5-92.4 | A- |
| 86.5-89.4 | B+ |
| 82.5-86.4 | B |
| 79.5-82.4 | B- |
| 76.5-79.4 | C+ |
| 72.5-76.4 | C |
| 69.5-72.4 | C- |
| 66.5-69.4 | D+ |
| 62.5-66.4 | D |
| 59.5-62.4 | D- |
| 0-59.4 | F |

**CLASS SCHEDULE OF TOPICS OR OUTLINE:**

See iCalendar

## Required Materials

It is expected that each student will bring the following items to class every day: physics textbook, graphing calculator, an erasable writing instrument, ruler, and notebook.

## Class Policies

**ATTENDANCE POLICY:** A student should not miss more than 5 classes over the course of the semester. EXCUSED absences (doctor appointments, dentist appointments, mandatory field trips, etc) will not count against a student as long as documentation is provided. If a student accumulates more than 5 unexcused absences, the student’s final grade will drop a full letter grade.

**STUDENT CONDUCT IN THE CLASSROOM:** The instructor in the classroom and in conference will encourage free discussion, inquiry and expression. Student performance will be evaluated wholly on an academic basis, not on opinions or political ideas unrelated to academic standards. However, in instances where a student does not comply with the Code of Student Behavior or with an instructor's reasonable conduct expectations in the classroom, such non-compliance can affect the student's evaluation and be cause for permanent removal from class or dismissal from College.

**ACADEMIC INTEGRITY:** If a faculty member discovers that a student has committed an academic integrity violation that warrants a sanction beyond a verbal warning, such as cheating or plagiarizing, the procedures outlined in the Academic Integrity Policy will be followed: <http://www.delhi.edu/academics/provost/academic_integrity.php>

**CELL PHONES/TAPE RECORDERS/ELECTRONIC DEVICES IN THE CLASSROOM:** Students are allowed to use cell phones and additional technology with instructor permission.

**NEW YORK STATE EDUCATION LAW - ABSENCES FOR RELIGIOUS REASONS:** Section 224-A allows a student to be excused from any examination or study or work requirements because of religious holidays. Each student must notify the instructor in advance so that an equivalent opportunity to make up any examination, study or work requirements he or she may have missed because of such absence may be given.

**INCLEMENT WEATHER:** SUNY Delhi is a residential campus and stays open unless the Governor closes the College. Simply stated, class will rarely be canceled. However, since this class is taught at Worcester Central School, this class will follow the schedule set by that institution.

**ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:** Reasonable accommodations will be provided to qualified students with documented disabilities. If you have a disability requiring accommodations in any class, contact and meet with the Coordinator of Access and Equity Services. The office is in the Resnick Learning Center in Bush Hall and the office number is 746-4593.
Your request for accommodation will be discussed and if determined reasonable, you will be provided with the verification letter that must be taken to your course instructor for a signature and returned to the office within 10 days.