**ESSEX COUNTY COLLEGE**

**Mathematics and Physics Division**

**MTH 092T *–* Elementary Algebra Tutorial**

**Course Outline**

**Course Number & Name:**  MTH 092T – Elementary Algebra Tutorial

**Credit Hours:**  1.0 **Contact Hours:**  1.0 **Lecture:** N/A **Lab:**  1.0 **Other:**  N/A

**Prerequisites**:  Grade of “C” or better in MTH 086 or placement into MTH 092

**Co-requisites:** MTH 092 **Concurrent Courses:** None

**Course Outline Revision Date:**  Fall 2017 **Note:** *Calculators cannot be used in this course.*

**Course Description**: The main purpose of this supplementary course is to help MTH 092 students master topics presented during class sessions through tutorial-based learning methods in MTH 092T sessions. Topics reinforced include various algebraic skills such as the following: operations on polynomials, rational expressions, and exponential expressions; solving quadratic equations, rational equations, and literal equations; solving and graphing linear equations; and solving various “real-life” application problems by applying appropriate algebraic methods. In this course, tutors provide supplemental instruction in a one-to-one or small group format while students work on assigned homework or customized tutorial problem sets (see http://dev.mathography.org).

**Course Goals:** Upon successful completion of this course *and* MTH 092, students should be able to do the following:

1. demonstrate knowledge of the fundamental concepts and theories from algebra and geometry;

2.    utilize various problem-solving and critical-thinking techniques to set up and solve real world applications; and

3.    communicate accurate mathematical terminology and notation in written and/or oral form in order to explain strategies to solve problems as well as to interpret found solutions.

**Measurable Course Performance Objectives (MPOs)**: Upon successful completion of this course *and* MTH 092, students should specifically be able to do the following:

1. Demonstrate knowledge of the fundamental concepts and theories from algebra and geometry:

* 1. *simplify and evaluate variable expressions*;
  2. *translate verbal expressions into variable expressions*;
  3. *perform basic operations on polynomial, rational, and exponential expressions*;
  4. *factor polynomial expressions*;
  5. *solve linear, literal and factorable quadratic equations*;
  6. *graph a line in the Rectangular Coordinate System*;

**Measurable Course Performance Objectives (MPOs)** (continued):

1. Demonstrate knowledge of the fundamental concepts and theories from algebra and geometry (continued):

* 1. *identify and find the slope and intercepts of a line*;and
  2. *find the equation of a line based on given geometric properties*

2. Utilize problem-solving and critical-thinking techniques to set up and solve real-world applications:

2.1 *apply algebraic methods to solve varied real-world applications (such as integer problems, uniform motion problems, and perimeter and area problems) that can be modeled by a linear equation or a quadratic equation*

3. Communicate accurate mathematical terminology and notation in written and/or oral form in order to explain strategies to solve problems as well as to interpret found solutions:

3.1   *write and explain solutions to application problems related to the course material using appropriate mathematical terminology and notation*

**Methods of Instruction:** This course is essentially a self-paced course in which students can practice applying mathematical concepts taught in the co-requisite MTH 092 lecture-based course by completing assigned WebAssign online homework, tutorial problem sets, and/or test/exam review problems; by reviewing MTH 092 class notes; and/or by viewing instructional videos available via WebAssign. Upon student request, one-to-one or small group supplemental instruction is provided by MTH 092T class tutors who are also tasked with monitoring tutorial class performance to insure students remain on-task and engaged in math-related activities throughout the entire class period.

**Outcomes Assessment:** No formal assessments will be conducted in this course. It is expected that participation in the tutorial will increase student mastery of MTH 092 content, which is assessed via blueprinted tests and exams in MTH 092 classes.

**Course Requirements:** All students are required to:

1. Maintain regular attendance; excessive absences will negatively affect student understanding and performance. Note: Students must bring their ID cards to MTH 092T classes for attendance purposes; if an ID reader is available, students must “swipe-in” at the beginning of the class period and “swipe-out” at the end of the class period to record their attendance.

2. Engage in math-related activities for the entire class duration. These activities may include completing assigned Webassign online homework, tutorial problem sets, other assigned coursework, and/or test/exam review problems or reviewing MTH 092 class notes and/or viewing instructional videos available via WebAssign or other appropriate internet sites.

3. Request assistance from the MTH 092T tutors as needed.

**Methods of Evaluation:** Grades awarded for the MTH 092T course are:

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| **Grade** | **Criteria** |
| S = Satisfactory | Student attended and worked on math-related tasks for 70% or more of the class meetings throughout the semester, which equates to the following:   * 10 or more class periods for a regular Fall or Spring semester; * 8 or more class periods for a Late-Start Fall or Late-Start Spring semester; and * 5 or more class periods in a Summer I or Summer II term. |
| M = Making Progress | Student attended and worked on math-related tasks for 26% to 69% of the class meetings throughout the semester, which equates to the following:   * 4 to 9 class periods for a regular Fall or Spring semester; * 3 to 7 class periods for a Late-Start Fall or Late-Start Spring semester; and * 2 to 4 class periods in a Summer I or Summer II term. |
| N = Not Attending | Student attended and worked on math-related tasks for 25% or fewer class meetings throughout the semester, which equates to the following:   * 3 or fewer class periods for a regular Fall or Spring semester; * 2 or fewer class periods for a Late-Start Fall or Late-Start Spring semester; and * 1 or zero class periods in a Summer I or Summer II term. |

**Academic Integrity:** Dishonesty disrupts the search for truth that is inherent in the learning process and so devalues the purpose and the mission of the College. Academic dishonesty includes, but is not limited to, the following:

* plagiarism – the failure to acknowledge another writer’s words or ideas or to give proper credit to sources of information;
* cheating – knowingly obtaining or giving unauthorized information on any test/exam or any other academic assignment;
* interference – any interruption of the academic process that prevents others from the proper engagement in learning or teaching; and
* fraud – any act or instance of willful deceit or trickery.

Violations of academic integrity will be dealt with by imposing appropriate sanctions. Sanctions for acts of academic dishonesty could include the resubmission of an assignment, failure of the test/exam, failure in the course, probation, suspension from the College, and even expulsion from the College.

**Student Code of Conduct:** All students are expected to conduct themselves as responsible and considerate adults who respect the rights of others. Disruptive behavior will not be tolerated. All students are also expected to attend and be on time for all class meetings. No cell phones or similar electronic devices are permitted in class. Please refer to the Essex County College student handbook, *Lifeline*, for more specific information about the College’s Code of Conduct and attendance requirements.

**Additional Important Notes:**

* The MTH 092T tutorial course is intended to provide structured support for students so they have the best possible chance to successfully complete the co-requisite MTH 092 course. Students are expected to use tutorial time wisely and focus on practicing, clarifying, and reinforcing the math skills needed to succeed. *No disruptive behavior including listening to music or talking loudly is allowed in the tutorial class sessions.*
* The MTH 092T Tutorial Problem Sets may be found online at http://dev.mathography.org**.**
* MTH 092T tutorial class attendance is mandatory. Not attending will result in being reported as a “No Show,” which can have consequences on financial aid awards/eligibility.
* Calculators – including cell phone calculators – and other technological aids (e.g., math-related apps) are *not* permitted to be used in MTH 092T tutorial classes.
* Students are required to be respectful and considerate of the MTH 092T tutors as well as their classmates.
* Students and tutors are encouraged to report any MTH 092T-related questions or concerns to the Mathematics and Physics Division.
* Students aree encouraged to seek assistance from the Learning Center on a drop-in basis if additional tutoring beyond what is provided in MTH 092T tutorial classes is needed.