ALGEBRAIC THINKING FOR SCIENCE
Summer 2024 – Second session (starts July 29th)

Faculty: Vauhn Foster-Grahler

E-mail: fostergv@evergreen.edu

Monday-Thursday, 10:30am – Noon, SEM II E 3105(tentative)

Your success in Algebraic Thinking for Science depends first and foremost on effective communication. You are asked to have homework exams completed and available at the next class meeting. Your success in this class is directly related to your level of engagement. This class is an excellent preparation for programs such as Integrated Natural Science and courses such as statistics or precalculus I.

The course: The topics included in Algebraic Thinking for Science are: Unit conversions, scientific notation, orders of magnitude, concepts of functions, linear, quadratic, exponential, and logarithmic functions, and elementary modeling. A good foundation in intermediate algebra is required for the course.

Who should take Algebraic Thinking? Students who want a broad overview of introductory college-level mathematics to prepare them for further study, as well as students who are looking for a mathematics survey course are a good fit for Algebraic Thinking for Science. The emphasis on collaborative learning and context-based problems make this a good course for educators. Algebraic Thinking for Science is designed for students who have been away from math for a while or who are looking for an entry point into college-level math.

The text: The text will be available in the bookstore as a class reader. The cost of $16.00 is included as a program fee. If you want the textbook shipped to you, please contact the bookstore.

Calculator: A graphing calculator is required for the course. If you are planning to continue in math or science, I strongly encourage you to get a graphing calculator. The best is a TI-Nspire CX CAS, though any TI graphing calculator will do.

Special Needs: If you have a documented accommodation or other special needs and will be requesting accommodations, please let your faculty know within the first week of class.

Awarding of Credit – In order to earn full credit, students must complete a faculty and a self-evaluation on time; complete, at the satisfactory level or above, each of the eight process outcomes (see attached) for each of the topics covered in the course and submit all Quizzes and Exams on time through the established channels. Both the student and the faculty will assess the process outcomes for each Quiz and Exam. Students are expected to adhere to the Student Conduct Code and the Learning Community Responsibilities Agreement. Please see the document on Canvas, Assessment and Credit in Algebraic Thinking for Science.

Please let me know if there are other ways we can help you to be successful in Algebraic Thinking. If you have questions or concerns please let me know as soon as possible.

Algebraic Thinking for Science
Tentative Calendar Summer 2024

Changes may be made at the discretion of the faculty. Exam dates are approximate.

Week	Sunday	Monday	Tuesday	Wednesday	Thursday
1		July 29 1.1 Orders of Magnitude and Scientific Notation	30 **1.2, 1.3** **Exponents and unit coversions**	31 2.1 Functions	August 1 2.2-2.4 Multiple representations of functions **Quiz 1 – Due Monday, 8/5 10:30 am**
2	July 2 Submit Problem Set 1 to Canvas before midnight	5 2.5 Domain and Range	6 2.6 Functions from Life	7 Chapters 1 and 2 review	8 3.1, 3.2 Linear Functions Problem Set 2 Posted **Quiz 2 – Due Monday, 8/12 10:30 am**
3	July 9 Submit Problem Set 2 to Canvas before midnight	12 3.3, 3.4 Linear Functions	13 4.1, 4.2 Exponential Functions	14 4.3, 4.4 Exponential Functions	15 4.5 Problem Set 3 Posted **Quiz 3 – Due Monday, 8/19** **10:30 am**
4	July 16 Submit Problem Set 3 to Canvas before midnight	19 4.1-4.5	20 5.1, 5.2 Logarithms	21 5.3 Logarithms	22 5.1-5.3 Logarithms Problem Set 4 Posted **Quiz 4 – Due Monday, 8/26 10:30 am**
5	July 23 Submit Problem Set 4 to Canvas before midnight	26 6.1, 6.2 Quadratics	27 6.3,6.4 Quadratics	28 Final exam review	27 **Final exam**
			Evaluation week		

The assessment of student work is based on these outcomes.

OUTCOME	I	S	P	COMMENTS
Used correct mathematical notation				
Used appropriate mathematical procedures				
Developed and/or correctly interpreted mathematical models				
Used technology appropriately to investigate and solve problems				
Linked algebraic, graphic, verbal, and numeric representations and solutions				
Demonstrated an understanding of functions				
Used logical and correct critical reasoning				
Communicated mathematics for the clarity of the receiver				

I = Needs Improvement S = Satisfactory P = Proficiency

Additional Comments