



GRAPHING TECHNOLOGY INSTITUTES

SUMMER 2019

West Chester University of Pennsylvania

FOR MATHEMATICS AND SCIENCE HIGH AND MIDDLE SCHOOL TEACHERS

Earn three (or more) Graduate Credits, or 45 (or more) Act 48 hours, this summer 2019

The Department of Mathematics at WCU of PA is offering four TI graphing calculator institutes this July 2019. Institutes may be taken for graduate credit or Act 48 hours. Both graduate tuition and the institute registration fee are required for those taking an institute for credit. Graduate tuition plus fees for PA residents is approximately \$1,848 and for non-residents is approximately \$2,658 for 3 credits. The registration fee per institute is \$225. This fee includes all books, workshop curriculum and consumable materials, refreshments, and a loaner graphing handheld (CE/CX). The WCU Teachers Teaching with Technology In-service/Pre-service Training Program is a PA PDE Act 48 approved activity. Participants taking the institute for noncredit will receive 45 Act 48 hours. Those participants taking it for 3 graduate credits will receive 3 PDE approved collegiate credits. *A minimum enrollment of 24 students is needed for a workshop to run.*

THE WEEK OF JULY 15th TO JULY 19th

Workshop 1. Effectively Using TI Technology in the Mathematics Classroom

Participants in this workshop will use TI-84 Plus calculators or TI-Nspire handhelds, TI computer software and data collection devices to investigate and explore problem situations that take advantage of the use of technology as a tool for learning a variety of mathematical topics. Participants will investigate different teaching strategies and will have opportunities for hands-on experiences with topics ranging from Pre-Algebra to Pre-Calculus. Classroom ready activities that use graphing calculators will focus on meeting State and National Mathematics objectives. (M-R 8 a.m. to 4:30 p.m. Friday till 1 p.m.) Instructor: Dr. Fred Decovsky. **FOR GRADUATE CREDIT REGISTER FOR: MTE 568 – SEMINAR FOR SECONDARY SCHOOL TEACHERS.**

Workshop 2. Integrating Coding using TI-Basic into your Mathematics and Science Lessons

Quickly build your programming skills in TI-Basic with projects taken from many aspects of the middle school and high school mathematics and science curriculum. Some topics planned are: divisibility, random numbers, graphics, probability, simulations, games, demonstrations, programming with lists, matrices and strings, programming the **TI-Innovator** and the **TI-Innovator Rover** (robotic vehicle). No programming experience necessary! (M-R 8 a.m. to 4:30 p.m. Friday till 1 p.m.) Instructor: John Hanna. **FOR GRADUATE CREDIT REGISTER FOR: MTE 595-01 – TOPICS IN MATHEMATICS EDUCATION (PROGRAMMING).**

THE WEEK OF JULY 22nd TO JULY 26th

Workshop 3. Mathematically Model Real-World Data with Social Implications

Analyze, model, and interpret actual data and create social awareness for important current issues. Use modeling equations to interpolate, extrapolate, calculate percent increase/decrease, and interpret data. Issues to investigate include Opioid Overdose Deaths, Data on Climate Change, Hot Car Temperature Deaths, Pay Day Loan Companies, Gerrymandering, and Plastic Pollution. Participants will create their own modeling activities and will illustrate and share solutions by creating a detailed blog. Participants will learn unique tips and tricks using the TI-84 CE or TI-Nspire. Note: the instructor was trained by Al Gore's Climate Reality and will share his materials. (M-R 8 a.m. to 4:30 p.m. Friday till 1 p.m.) Instructors: Tom Reardon/Carlo Trafficante. **FOR GRADUATE CREDIT REGISTER FOR: MTE 595-02 – TOPICS IN MATHEMATICS EDUCATION (MODELING).**

Workshop 4. Integrate ACT and SAT Preparation into Your Math Lessons with TI-84 CEs or TI-Nspires

Obtain interactive activities that align directly to the questions that are on the revised exams that promote conceptual understanding and de-emphasize memorizing procedures and formulas. Obtain proven ACT and SAT test-taking strategies that encourage multiple solution paths. Participants will explore activities and learn unique tips and tricks on the TI-84 CE or TI-Nspire (their choice!). They will do actual exam problems and discuss multiple paths of solution. We will encourage collaboration and discussion while illustrating technology tips for classroom learning and test-taking. (M-R 8 a.m. to 4:30 p.m. Friday till 1 p.m.) Instructors: Tom Reardon/Carlo Trafficante. **FOR GRADUATE CREDIT REGISTER FOR: MTE 502 – FUNDAMENTAL CONCEPTS IN MATHEMATICS II.**

For more detailed course information go to: www.johnhanna.us/wcupa2019

REGISTRATION FORM

Name _____ Phone _____

Mailing Address _____

City, State, and Zip _____

Graduate credit NO _____ YES _____ (To register as a non-degree student visit <https://www.wcupa.edu/registrar/nondegree.aspx>) _____

E-mail address _____ Circle: Workshop 1 Workshop 2 Workshop 3 Workshop

Mail your registration form and check to:
Dr. Gail Gallitano
West Chester University
25 University Ave. Department of Mathematics
West Chester, PA 19383

Make all checks payable to West Chester University
For info contact Gail Gallitano at ggallitano@wcupa.edu
or 484-319-7117 (cell);
or call the Mathematics Dept office 610-436-2440;
fax 610-738-0578