<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 June</td>
<td>8:00 - 9:00 a.m.</td>
<td>Registration, breakfast, and welcome</td>
</tr>
<tr>
<td>WED</td>
<td>9:00 - 10:30 a.m.</td>
<td>Elementary Teachers: Science Workshop I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Sonja Thomas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary Education Teachers: Math Workshop I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gary and Beverly Kubina</td>
</tr>
<tr>
<td></td>
<td>Course Description</td>
<td>Introducing children to the world of Entomology. In this course, participants will learn about all of the insect orders and various methods of identifying insects. Participants will also learn about places to find these insects.</td>
</tr>
<tr>
<td></td>
<td>Course Materials</td>
<td>Insect collection tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brain warm-up</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planes and Lines (using index cards &amp; straws)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Number Line</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollar Bill Pyramid (surface area &amp; volume)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paper folding (find the measure of 9 angles)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pantograph (create similar figures)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Index cards, straws, paper money, 8.5” x 8.5” origami paper, rubber bands, paper</td>
</tr>
<tr>
<td></td>
<td>10:30 - 10:45 a.m.</td>
<td>Morning Break</td>
</tr>
<tr>
<td></td>
<td>10:45 - noon</td>
<td>Elementary Teachers: Science Workshop II</td>
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<tr>
<td></td>
<td></td>
<td>Dr. Sonja Thomas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary Education Teachers: Math Workshop II</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gary and Beverly Kubina</td>
</tr>
<tr>
<td></td>
<td>Course Description</td>
<td>We will continue with the exploration of insects and their habitat. We will discuss the tools needed to collect various types of insects and we will prepare our insect collection tools.</td>
</tr>
<tr>
<td></td>
<td>Course Materials</td>
<td>Insect collection tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Geometry Review (beach ball toss)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AngLegs (exploring 2-D Geometry with manipulatives)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Octagon Magic Trick (reflection and rotation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scale Drawing (similar figures)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Circle Review (paper plate)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beach ball, AngLegs, Octagon trick, square paper, similar figure templates, paper plates, spaghetti</td>
</tr>
<tr>
<td></td>
<td>12:00 – 1:00 p.m.</td>
<td>Lunch Break</td>
</tr>
<tr>
<td></td>
<td>1:00 - 2:30 p.m.</td>
<td>Elementary Teachers: Science Workshop III</td>
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<tr>
<td></td>
<td></td>
<td>Dr. Sonja Thomas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary Education Teachers: Math Workshop III</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gary and Beverly Kubina</td>
</tr>
<tr>
<td></td>
<td>Course Description</td>
<td>Outdoor collecting trip. This portion of the training involves collecting insects and identifying them. Participants will learn ways to collect and preserve insects for classroom display.</td>
</tr>
<tr>
<td></td>
<td>Course Materials</td>
<td>Paper plates, arcs, cone cups, matching card game, index cards, patty paper</td>
</tr>
<tr>
<td></td>
<td>2:30 - 2:45 p.m.</td>
<td>Afternoon Break</td>
</tr>
<tr>
<td></td>
<td>2:45 – 3:45 p.m.</td>
<td>Elementary Teachers: Science Workshop IV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Sonja Thomas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary Education Teachers: Math Workshop IV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gary and Beverly Kubina</td>
</tr>
<tr>
<td></td>
<td>Course Description</td>
<td>Continue collecting and mounting insects for classroom collection.</td>
</tr>
<tr>
<td></td>
<td>Course Materials</td>
<td>Insect collecting guide, collection tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Patty Paper Constructions, Make 3-D solids (card stock)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Magic Midpoint (Balance ruler to find midpoint), 3 Similar Right Triangles (Geometric Mean), Reviewing a concept (Throw up and Teacher-Student-Teacher)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Patty paper, card stock, scissors, tape, meter stick, index cards, paper</td>
</tr>
<tr>
<td></td>
<td>3:45 - 4:30 p.m.</td>
<td>Reflections, Evaluations</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Activity</td>
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</tr>
<tr>
<td>19 June</td>
<td>8:00 – 9:00 a.m.</td>
<td>Registration, breakfast, and welcome</td>
</tr>
<tr>
<td>THUR</td>
<td>9:00 - 10:30 a.m.</td>
<td>Elementary Teachers: Science Workshop I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary Education Teachers: Math Workshop I</td>
</tr>
</tbody>
</table>

**Course Description**

Through this course, participants will learn about the scientific method, engage in aquatic ecology research, and discover the amazing beauty and diversity of aquatic life residing in ponds and streams. Participants will build inexpensive gear to sample diverse aquatic habitats to see the amazing biodiversity of these systems. Discussions about the biotic and abiotic factors that influence the structure and function of aquatic communities will help participants link patterns and processes. Lastly, participants will setup and conduct aquatic ecology experiments aimed at understanding the threat that eutrophication has on water quality.

**Course Materials**

PPT, microscopes, nets, and buckets

Cotton bond paper, fabric crayons, tessellation template squares
(t-shirts: optional for teachers to bring)

**Morning Break**

10:30 - 10:45 a.m.

10:45 - noon

12:00 – 1:00 p.m.

1:00 - 2:30 p.m.

2:30 - 2:45 p.m.

2:45 – 3:45 p.m.

**Course Materials**

PPT, microscopes, nets, and buckets

Paper, Pascal’s triangle template, cardstock with icosahedron, origami paper, beads, stretch cord, paper clip

Octagon sliding star, Parabolic saddle, Discuss Topology, Mobius bands, If time permits: Use music to collect and compare data

**Lunch Break**

10:45 - noon

Secondary Education Teachers: Math Workshop II

Course Description

(See Above)

(See Above)

(See Above)

(See Above)

**Course Materials**

Video, graph paper, black felt tip pens

Paper, Pascal’s triangle template, cardstock with icosahedron, origami paper, beads, stretch cord, paper clip

Origami paper, paper strips, music CD

**Reflections, Evaluations**
# Wiregrass Math, Science, and Leadership Academy

**June 18 – 20, 23-24, 2014**

**Workshop location: Harrison Room, Malone Hall**

**Troy University - Dothan Campus**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 June</td>
<td>8:00 – 9:00 a.m.</td>
<td>Registration, breakfast, and welcome</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All Day</th>
<th>Presenters</th>
<th>Virginia Vilardi</th>
<th>Dr. Robert Vilardi</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRI</td>
<td>Elementary Teachers: Science Workshop I iPad Teacher Tools</td>
<td>Secondary Education Teachers: Math Workshop I iPad Teacher Tools</td>
<td></td>
</tr>
</tbody>
</table>

### Course Description

1. **QuickVoice Recorder**: the perfect recording tool to record your classes and get feedback on your performance; you can see what you’re doing right or wrong and learn how you can improve your lectures.
2. **Dropbox**: a file storage application that allows you to say goodbye to flash drives and portable hard disks for good. Just sign up to store your files online and then access them from any other computer, your iPad or your smartphone. Ideal for files you use at school and at home.
3. **Things for iPad**: the perfect task manager to keep track of all your appointments & prepare ahead.
4. **Discover**: the go-to app for the iPad when you need information on just about anything in the world.
5. **Evernote**: use Evernote to enter your notes in text or voice format to jot down notes or lesson plans.
6. **Pages for iPad**: type out all your documents and include any kind of formatting you may need.
7. **Numbers for iPad**: For all your spreadsheet needs on your iPad, turn to Numbers. It’s easy to use, easy to access, and easy to import all your information from your Excel worksheets.
8. **Goodreader for iPad**: Use this app to access all your documents, PDF files, video and audio files, spreadsheets and many other kinds of files over a wireless network or via USB cable – it makes it dead easy to retrieve files from other systems.
9. **Mobile Air Mouse**: tool for hosting presentations & conducting lectures using an interactive whiteboard. It turns your iPad into an all-in-one remote control that you can use to manipulate the board without having to resort to using a wireless keyboard and a mouse.
10. **WritePad**: This app converts your handwriting on the iPad into readable text – use your finger or a stylus to get your point across.

### Course Materials

**iPads**

- **iPad**s

**Course**

<table>
<thead>
<tr>
<th>Morning Break</th>
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</thead>
<tbody>
<tr>
<td>10:30 - 10:45 a.m.</td>
</tr>
<tr>
<td>Elementary Teachers: Science Workshop II iPad Apps for the classroom</td>
</tr>
<tr>
<td>Secondary Education Teachers: Math Workshop II iPad Teacher Tools</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>QRCode Reader and Scanner—scans a QR code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate iPad. This course will cover more</td>
<td></td>
</tr>
<tr>
<td>Course Description</td>
<td>Description</td>
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<td>-------------------</td>
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</tr>
<tr>
<td>Course Materials</td>
<td>iPads</td>
</tr>
<tr>
<td>12:00 – 1:00 p.m.</td>
<td>Elementary Teachers: Science Workshop III iPad Apps for the science classroom</td>
</tr>
<tr>
<td>1:00 - 2:30 p.m.</td>
<td>Leafsnap—take a photo of a leaf with the app—it gives the name and details about the tree from which the leaf comes from. It also keeps records of various trees in its database. You can search for tree types. Hyperchem—build your own molecules Hudson Alpha icell—explore the parts of bacterial, plant and animal cells Genome Caching—learn about the human genome Science 360—excellent compilation of articles, photos and videos to be used in the science classroom. Smithsonian-- excellent compilation of articles, photos and videos to be used in the science classroom.</td>
</tr>
<tr>
<td>2:30 - 2:45 p.m.</td>
<td>Elementary Teachers: Science Workshop IV Gizmos for iPad</td>
</tr>
<tr>
<td>2:45 – 3:45 p.m.</td>
<td>Get in Touch with Gizmos — now on the iPad! Gizmo math and science simulations are a natural fit for the iPad. With rich visuals and hands-on experimentation, Gizmos provide students with a truly interactive experience.</td>
</tr>
<tr>
<td>3:45 - 4:30 p.m.</td>
<td>Elementary Teachers: Science Workshop IV Gizmos for iPad</td>
</tr>
<tr>
<td>4:30 – 5:00 p.m.</td>
<td>Reflections, Evaluations</td>
</tr>
</tbody>
</table>
**Wiregrass Math, Science, and Leadership Academy**

**June 18 – 20, 23-24, 2014**

**Workshop location: Harrison Room, Malone Hall**

**Troy University - Dothan Campus**

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<thead>
<tr>
<th>Date</th>
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<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 June</td>
<td>8:00 – 9:00 a.m.</td>
<td>Registration, breakfast, and welcome</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All Day</th>
<th>Presenters</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jane T. Barnard, Assoc. Professor Emerita of Mathematics &amp; National T^3 Instructor</td>
<td>Jim Haskins, Georgia Military College &amp; National T^3 Instructor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MON</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 10:30 a.m.</td>
<td>Elementary Teachers: Science Workshop I, Secondary Education Teachers: Math Workshop I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Making Measurement Meaningful</strong></td>
<td>Engaging hands-on activities to examine mass/weight/volume. [Measuring is an important process skill that requires students to make quantitative observations by comparing to a conventional or nonconventional standard.] We will estimate, find, and communicate measurements, using standard and nonstandard units.</td>
</tr>
<tr>
<td><strong>What are Basic Facts for Middle and Secondary Mathematics?</strong></td>
<td>Empowering students with number sense and connections using “rodeo quizzes”. Basic facts of fractions, decimals, squares, square roots and cubes need to be automatic. Strategies and relationships will be shown and techniques for mastery demonstrated and practiced.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Materials</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play Dough; scales (grams/ounces); graduated cylinders and paper cups; PPTs; student recording sheets; assorted experiment supplies; TI Graphing Handhelds</td>
<td>Handouts will be provided; TI Graphing Handhelds will be used.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10:30 - 10:45 a.m.</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning Break</td>
<td>-</td>
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<table>
<thead>
<tr>
<th>10:45 - noon</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Teachers: Science Workshop II</td>
<td>Secondary Education Teachers: Math Workshop II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td><strong>Making Measurement Meaningful (Cont.)</strong></td>
<td>Investigations with batteries and measuring voltage; estimating lengths; investigating volume</td>
</tr>
<tr>
<td><strong>Dealing with Data, Part I</strong></td>
<td>Univariate data will be collected. Descriptive statistical terms will be explained and computed by hand and using the calculator. Basic graphs of the data will be explored.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Materials</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinders, cones, cubes; centimeter grid paper; PPT; batteries, rulers, voltage probe; TI Graphing Handhelds</td>
<td>Handouts; TI Graphing Handhelds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12:00 - 1:00 p.m.</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Lunch Break</td>
<td>-</td>
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<thead>
<tr>
<th>1:00 - 2:30 p.m.</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Elementary Teachers: Science Workshop III</td>
<td>Secondary Education Teachers: Math Workshop III</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td><strong>Some Like it HOT!</strong></td>
<td>Using Multiple Representations to develop concepts of temperature; relating the Celsius and Fahrenheit temperature scales</td>
</tr>
<tr>
<td><strong>Dealing with Data, Part II</strong></td>
<td>Our world is full of interesting data. Students gravitate toward mathematics they can use with information from their own world. We will build a “real-life” box-and-whisker plot and then by-hand &amp; graphing calculator plots to reinforce the five-number summary of data. Common Core Standards of Mathematical Practice will be discussed relative to activities.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Course Materials</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper strips; Vernier Temperature Probes; thermometers; TI Graphing Handhelds; assorted experiment supplies</td>
<td>Number cards, ribbon, paper towels, paper clips, handouts, PowerPoint; TI Graphing Handhelds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2:30 - 2:45 p.m.</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Afternoon Break</td>
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<thead>
<tr>
<th>2:45 – 3:45 p.m.</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Elementary Teachers: Science Workshop IV</td>
<td>Secondary Education Teachers: Math Workshop IV</td>
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<table>
<thead>
<tr>
<th>Course Description</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td><strong>The Marriage of Science &amp; Mathematics in Our “Natural” World</strong></td>
<td>A photographic investigation of plants, animals, molecular structures to examine special mathematical sequences, various symmetries, patterning; the importance of inductive reasoning</td>
</tr>
<tr>
<td><strong>How to Count without Counting:</strong></td>
<td>Investigating counting techniques (by hand and technologically), including permutations and combinations, and the Fundamental Counting Principle.</td>
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</table>

<table>
<thead>
<tr>
<th>Course Materials</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPT; photographs, models, centimeter graph paper; colored pencils; scissors</td>
<td>Handouts; TI Graphing Handhelds</td>
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</tbody>
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<table>
<thead>
<tr>
<th>3:45 - 4:30 p.m.</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Reflections, Evaluations</td>
<td>-</td>
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</tbody>
</table>
## Course Description

**A SQUARE Deal: Generating Representations of Patterns using Squares and Graphing Handhelds (TI-84s)**

The square, one of the first geometric shapes children learn to recognize, can be used to introduce a plethora of mathematical morsels in elementary and middle grades (including area/perimeter, angle classification, figurate numbers, pentominoes, tangrams, multiplication/factoring, number patterns, tilings, geometric sequences, limits). In the four sessions, we will use the square/square region to consider practices that rest on important “processes and proficiencies” with longstanding importance in mathematics education (Standards for Mathematical Practice).

Some things we will consider:
- Orientation of lines – vertical, horizontal, oblique [and defining “diagonal”]
- Symmetry folds of a square region; other ways to cut a square region in half
- The right angle as “square corner” – defining acute/obtuse angles in terms of the square corner
- Definition of “right angle”
- Tiling and Tessellations
- Changing Area and Fixed Perimeter
- Geoboards (unit squares) – polygons, lengths, examining area, perimeter
- Eight is Enough – dividing the $5 \times 5$ geoboard into eighths (congruent then noncongruent shapes)
- A $2 \times 2$ Square: problem solving activity
- Square numbers are figurate numbers; generating squares with sums
- What is the meaning of “square root”?
- Tangrams
- Polyominos
- Perimeter and Edge Length – representing the relationship using multiple representations (technology)
- Squares and a sequence whose limit is 0
- Squares and the Fibonacci Sequence
- Cannonball array on The Battery in Charleston, SC
- Magic Squares, Sudoku Squares

## Demystifying the Binomial Theorem

The Binomial Distribution will be demystified using the TI84 calculator. Lists, formulae, and graphs will be practiced. Counting techniques will be reviewed. The power of the calculator will be exploited for reinforcement.

## Course Materials

- Paper one-inch squares, centimeter grid paper, Handouts; TI Graphing Handhelds
<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>10:30 - 10:45 a.m.</td>
<td><strong>Morning Break</strong></td>
</tr>
<tr>
<td>10:45 - noon</td>
<td>Elementary Teachers: Science Workshop II</td>
</tr>
<tr>
<td></td>
<td>Secondary Education Teachers: Math Workshop II</td>
</tr>
<tr>
<td>Course Description</td>
<td>A SQUARE Deal: Generating Representations of Patterns using Squares and Graphing Handhelds (TI-84s); Part II</td>
</tr>
<tr>
<td></td>
<td><strong>All Things Normal:</strong> investigations of the standard unit normal distribution as well as non-standard normal distribution - creating/interpreting sketches; “to z or not to z;” using tables or the graphing calculator.</td>
</tr>
<tr>
<td>Course Materials</td>
<td>(See above)</td>
</tr>
<tr>
<td>Lunch Break</td>
<td>Handouts; TI Graphing Handhelds</td>
</tr>
<tr>
<td>1:00 – 1:00 p.m.</td>
<td>Elementary Teachers: Science Workshop III</td>
</tr>
<tr>
<td></td>
<td>Secondary Education Teachers: Math Workshop III</td>
</tr>
<tr>
<td>Course Description</td>
<td>A SQUARE Deal: Generating Representations of Patterns using Squares and Graphing Handhelds (TI-84s); Part III</td>
</tr>
<tr>
<td></td>
<td><strong>Developing Confidence Intervals:</strong> Determining the probability that a specific result might occur due to random fluctuation (or chance), large vs. small sample, and examining an actual medical example using PSA results.</td>
</tr>
<tr>
<td>Course Materials</td>
<td>(See above)</td>
</tr>
<tr>
<td>Afternoon Break</td>
<td>Handouts; TI Graphing Handhelds</td>
</tr>
<tr>
<td>2:30 - 2:45 p.m.</td>
<td>Elementary Teachers: Science Workshop IV</td>
</tr>
<tr>
<td></td>
<td>Secondary Education Teachers: Math Workshop IV</td>
</tr>
<tr>
<td>Course Description</td>
<td>A SQUARE Deal: Generating Representations of Patterns using Squares and Graphing Handhelds (TI-84s); Part IV</td>
</tr>
<tr>
<td></td>
<td><strong>Simple Hypothesis Testing of the Mean:</strong> developing null and alternate hypotheses; calculated vs. test z-statistic, interpretation of results</td>
</tr>
<tr>
<td>Course Materials</td>
<td>(See above); Ellison Letter Machine and construction paper</td>
</tr>
<tr>
<td>Reflections, Evaluations</td>
<td>Handouts; Graphing Technology</td>
</tr>
</tbody>
</table>
Presenters

Dr. Jane T. Barnard

Jane T. Barnard is Associate Professor of Mathematics Emerita at Armstrong Atlantic State University in Savannah, GA, from 1980-2009. She received her B.S. and M.S. degrees in Mathematics; Ed. Specialist, Middle Grades Mathematics; PhD (ABD), in Saint Louis University in 2006. She has taught mathematics from Pre-K to university in both public and private schools. She served as Director of Mathematics Education at Armstrong Atlantic State University from 1990-2002. She is the recipient of the 2008 John Neff Award for Excellence at the post-secondary level as an inspirer, mentor, and advocate of mathematics and mathematics instruction from the Georgia Council of Teachers of Mathematics. She received 2001 Regents Teaching Excellence Award from the University System of Georgia Board of Regents. She was conferred with all three faculty teaching awards given by Armstrong Atlantic State University. She is a recipient of 2000 University Teaching Excellence Award; 1996 Outstanding Faculty Award from AASU Alumni Association; 1988 Propst Outstanding Faculty Award which was voted by students. She is currently a T^3 (Teachers Teaching with Technology) National Instructor for Texas Instruments, hosted over a dozen T^3 Regional Conferences, taught approximately 20 summer courses for Texas Instruments, and received more than 30 grants (Eisenhower Higher Education, Teacher Quality, STEM, PRISM, T^3, Teaching & Learning). She loves the teaching and learning of mathematics via multiple representations and using multiple intelligences. She delights in finding mathematics in the world around us including manhole covers, quilts, plants & animals and sharing through photographs or models. She has raised two daughters in Savannah, GA, who both now live in Portland, OR, with their families. She is married to Jim Haskins, a mathematics teacher.

Jim Haskins

Jim Haskins completed an engineering degree in Applied Math and Computer Science from Washington University in 1969. In 1971, he received an MAT in Mathematics from Webster University. In 1981, he started an MBA degree at Washington University. He taught MBA, EMBA and PMBA students for the next 19 years since 1982. In 1990, he was chosen to attend Princeton University in the Woodrow Wilson Teaching program. He was also chosen to be the National Instructor for Texas Instruments in the Teachers Teaching with Technology (T-cubed) program. He was honored as the St. Louis Mathematics Teacher of the Year and has been working part-time at GA Military College teaching Statistics, Precalculus and College Algebra. He has also worked as an Adjunct Professor at Webster University and St. Louis University in their Math Ed programs. His wife, Jane and Jim have been married over 12 years and have done workshops and presentations all over the country as well as a three-week trip to seven schools in South Africa in the summer of 2001. They have five children and five grandchildren spread out from Portland, OR, to St. Louis, MO, to Charlottesville, VA, and Manhattan, NY.

Gary Kubina

Gary Kubina, M.Ed., taught at Citronelle High School in Mobile, Alabama for 27 years. He currently does math consulting with various school systems and businesses. Some of his awards include: Teacher of the year for Mobile County, Outstanding Instructor Award for the University of South Alabama, Presidential Award for Excellence in Mathematics Teaching, Alabama Classroom Enhancement Award to study math in Hawaii, Toyota International Teacher Award to study in Japan, Radio Shack Tandy Scholar, and he had his picture in *Time* magazine as “One of the brightest, most industrious minds in America today”
Dr. Sonja Thomas

Sonja Thomas holds a Ph.D. in Structural Entomology from the University of Georgia and a M.S in Soybean Entomology from the University of Kentucky. Her experience includes entomology work with USDA, National Park Service, Ag and Natural Resources County Extension Agents and several Land Grant Universities. She has conducted research in the area of IPM in schools and federal buildings by developing an IPM plan for the Chattahoochee River National Recreational Area. Through her work in structural entomology, she has reviewed over 2,000 pesticide use records from Georgia’s public schools in an effort to identify possible training for industry professionals and regulators. She is currently a member of the National Pest Management Association, Alabama Vector Management Society, Association of Applied IPM Ecologists, Southern Region School IPM Work Group, Entomological Society of America and the State and National Association of County Extension Agents.

Dr. Virginia A. Vilardi

Virginia A. Vilardi received her Ph.D. From the University of Alabama in Educational Leadership and Instructional Technology in 2013. She is currently a high school science teacher and department chair from Wetumpka, Alabama. At Wetumpka High School, she teaches Advanced Placement Biology, Advanced Placement Physics, Physical Science and Robotics. She also serves the Alabama Academy of Science as their State International Science and Engineering Fair Coordinator. Throughout her tenure at Wetumpka Dr. Vilardi has mentored a host of award winning science competition teams and students. She has presented Advance Placement review sessions for A+ College Ready and New Teacher Training for BEST Robotics and Science Fair.

Dr. Alan Wilson

Alan Wilson received his Ph.D. in Applied Biology from the Georgia Institute of Technology in 2006. After spending a year as a research investigator at the Cooperative Institute for Limnology and Ecosystems Research (CILER) jointly housed at the University of Michigan and NOAA’s Great Lakes Environmental Research Laboratory (GLERL), Alan joined the faculty in the School of Fisheries at Auburn University (AU) in 2007 where he currently is an Associate Professor. This July, Alan will move to the National Science Foundation where he will help manage the Population and Community Ecology in the Division of Environmental Biology. Alan’s research interests center around the ecological mechanisms mediating harmful algal blooms. He is particularly interested in understanding how intraspecific genetic and phenotypic variation influences the promotion and control of toxic cyanobacterial blooms. Alan is also initiating projects aimed at understanding how toxic algal blooms influence human and livestock health. You can learn more about Alan’s research at http://wilsonlab.com/