**STUDENT PROGRAMS**

The Ruth Patrick Science Education Center’s K-12 Student Programs offerings for 2012-2013 will be posted online on April 20, 2012. Teachers will be able to select from 52 different hands-on, inquiry based classroom programs aligned to state standards. We recommend that teachers combine 2 or 3 programs in one visit.

Teachers may download program descriptions, standards correlations, pre-and post visit activities, reservation request forms, and more at http://rpsec.usca.edu/student/. Reservation requests may also be submitted online for a limited time. Print brochures and request forms will be mailed only to those teachers who have reserved programs in the last three years. Request forms may be mailed to the RPSEC or faxed to (803) 641-3615. Due to budget cuts, the number of programs from which to select might be reduced next year. We are continuing to look for grants and funding sources.

Teachers may request up to 4 programs for the school year but, pending funding, this number may be reduced—so please prioritize your requests. Last year we received many more requests than we were able to serve. We will schedule teachers’ requests, subject to availability, in the order specified on the reservation request form.

The deadline to submit reservation requests is Friday, June 15, 2012 at 5:00 PM. Due to the volume of anticipated requests, it is highly unlikely that late requests will be filled. Requests received after June 15 will be placed on a waiting list. Thank you for your understanding.

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**2011-2012 STUDENT PROGRAMS TIMELINE**

- **Friday, June 15, 2012**
  - Deadline to submit Student Programs Reservation Requests for 2012-2013

- **Friday, July 27, 2012**
  - Confirmation Contract Letters will be mailed to teachers’ home addresses

- **Tuesday, September 4, 2012**
  - Deadline to return signed Confirmation Contract Letters

- **Monday, September 10, 2012**
  - RPSEC Student Programs classes begin; waiting list programs begin to be scheduled

- **Friday, September 14, 2012**
  - Any 2011-2012 student programs not confirmed by this date will be cancelled and filled from the waiting list
STEP RESERVATION REQUESTS FOR 2012-2013

The Ruth Patrick Science Education Center’s Science Technology Enrichment Program (STEP) offerings for 2012-2013 will be posted online on April 20, 2012.

Teachers will be able to select from nine different hands-on, inquiry based program clusters (2 programs per visit) that are aligned to state standards. A STEP visit includes 3 hours of programming, lunch, and transition times and is typically scheduled for 9:15 AM - 1:15 PM.

The Science and Technology Enrichment Program (STEP) is a cooperative effort between Savannah River Nuclear Solutions, Silver Bluff Audubon Center, and the Ruth Patrick Science Education Center. Two field trip locations for STEP include the Savannah River Site and the Silver Bluff Audubon Center. At each location, STEP students utilize classroom and outdoor laboratories to conduct scientific investigations on topics such as water ecology, soils, wildlife, forestry, archaeology, navigation and more. For program information and a STEP reservation request form, please visit the STEP website at: http://rpsec.usca.edu/step/.

Reservation requests may also be submitted online. The deadline to submit reservation requests is Friday, June 15, 2012 at 5:00 PM. Request forms may be mailed to the RPSEC or faxed to (803) 641-3615.

Please note that all visitors to SRS, including bus drivers, chaperones, students, and teachers, will need to submit paperwork including Social Security numbers at least 2 weeks before your visit to be badged.
Students from Kennedy Middle School in Aiken, S.C. received first place recognition at the 2012 South Carolina Regional Future City Competition, sponsored by Savannah River Nuclear Solutions and the Ruth Patrick Science Education Center. The competition, which each year invites 6th, 7th and 8th graders to create a city of tomorrow, was held January 21st on the USCA campus.

This year’s winning team created the futuristic city, Neoterica, and included Mackenzie Cud, Lacie Leach, and Tyler Reedy, students at Kennedy Middle School, along with Margo Gore, teacher and faculty sponsor of the Future City Team, and engineer mentor Amanda Reedy.

In addition to a $1,000 USC Aiken scholarship sponsored by AT&T, students on the winning team received a trip to the 19th Annual Future City National Finals in Washington, D.C., held Feb. 17-21 during Engineers Week. Team members were also awarded $100 each, luggage, a trophy, and medallions.

Sponsored by the nation’s professional engineering community, Future City is the nation’s largest engineering education program, encouraging interest in science, technology, engineering, and mathematics through hands-on applications.

1ST PLACE - KENNEDY MIDDLE SCHOOL
2ND PLACE - W.A. PERRY MIDDLE SCHOOL
3RD PLACE - NORTH AUGUSTA MIDDLE SCHOOL

FUTURE CITY SPECIAL AWARD WINNERS

BEST INTEGRATION OF ENGINEERED SYSTEMS - PAUL KNOX MIDDLE SCHOOL
BEST PROJECT MANAGEMENT PLAN - ST. MARY ON THE HILL SCHOOL
BEST ENERGY SYSTEM - W.A. PERRY MIDDLE SCHOOL
BEST PLANNED CITY - ST. MARY ON THE HILL SCHOOL
EXCELLENCE IN FUTURISTIC CONCEPTS - NEW ELLenton MIDDLE SCHOOL
STUDENT CHOICE - KENNEDY MIDDLE SCHOOL
BEST MODEL - KENNEDY MIDDLE SCHOOL
BEST AUTOMATION / COMPUTER APPLICATIONS - Aiken Middle School
BEST ESSAY - ST. MARY ON THE HILL SCHOOL
BEST USE OF SYSTEMS ENGINEERING - Aiken Area Home Educators
PROTECTING PUBLIC HEALTH & SAFETY - W.A. PERRY MIDDLE SCHOOL
MOST CREATIVE USE OF MATERIALS - JET MIDDLE SCHOOL
Family Earth and Sky Night

Celebrate National Astronomy Day, which is April 28, 2012, with an evening of fun and learning at the Ruth Patrick Science Education Center. A variety of free, hands-on activities will be offered from 6:30 to 9:30 p.m., and our planetarium show, To the Moon and Beyond, will be presented at 7:00, 8:00, 9:00, and 10:00 p.m.

When: April 28, 2012 6:30 p.m. – 11:00 p.m.
Where: Ruth Patrick Science Education Center at USCA
What: Hands-on activities, planetarium shows, and night sky viewing
Hosted by: The Astronomy Club of Augusta (ACA), the DuPont Planetarium, the Ruth Patrick Science Education Center and the University of South Carolina Aiken.

Hands-on Activities: From 6:30 to 9:30, explore the wonders of earth and space science, make items to take home, and interact with live animals such as snakes, turtles, alligators, and owls.

Planetarium Shows: To the Moon and Beyond will be presented on a first-come, first-served basis with start times of 7:00, 8:00, 9:00 and 10:00. Ticket prices are: Students K-12 $2.50, Adults $4.50, Senior Citizens $3.50, USCA Students and Staff $1.00.

To the Moon and Beyond
Renew your knowledge of the moon and celebrate NASA’s fifty years in space. This program will revisit past missions to the moon and discuss what was learned from the Apollo missions’ heroic adventures. Current and future explorations of the moon will be detailed. Learn more about the characteristics of our closest neighbor in space and explore why we need to return to Earth's only natural satellite, maybe even to stay!

Outdoor Observing: Once it gets dark, the observatory will open for viewing through the Bechtel Telescope, and amateur astronomers will set up other telescopes on the lawn. Weather permitting Saturn and the crescent Moon will be visible as will the Pleiades and Beehive Star Clusters. Members of the Astronomy Club of Augusta will orient you to the night sky: naked-eye, binocular, and telescopic. They will help you find many fascinating heavenly bodies with their telescopes or with your own. This is a good opportunity to learn the most important constellations and stars, and how to star hop from one to another.

Weather: Family Earth and Sky Night will be held rain or shine. Plan to bring friends and family no matter what the weather!
Schedule for Public Planetarium Shows
March 2012 – August 2012

<table>
<thead>
<tr>
<th>Dates</th>
<th>Show Names</th>
<th>Show Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 March 31</td>
<td>Mission to Mars</td>
<td>7:00 and 8:00 p.m.</td>
</tr>
<tr>
<td>2012 April 7, 14, 21, 28</td>
<td>To the Moon and Beyond (40th anniversary Apollo 16)</td>
<td>7:00 and 8:00 p.m.</td>
</tr>
<tr>
<td>Earth &amp; Sky Night 4/28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012 May 5, 12, 19, 26</td>
<td>Transit of Venus</td>
<td>8:00 and 9:00 p.m.</td>
</tr>
<tr>
<td>and June 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012 June 9, 16, 23, 30</td>
<td>Ancient Skylore &amp; Virtual Journey More Than Meets the Eye</td>
<td>8:00 p.m. 9:00 p.m.</td>
</tr>
<tr>
<td>2012 July 7, 14, 21, 28</td>
<td>In My Backyard Digistar “Laser” Fantasy</td>
<td>8:00 p.m. 9:00 p.m.</td>
</tr>
<tr>
<td>2012 August 4, 11, 18, 25</td>
<td>Follow the Drinking Gourd Digistar Virtual Journey</td>
<td>8:00 p.m. 9:00 p.m.</td>
</tr>
</tbody>
</table>

Special Events
Spring Earth & Sky Night and National Astronomy Day: April 28, 2012

Transit of Venus - The last time for over 100 years!
The Transit of Venus is a rare event when the planet Venus crosses in front of or “transits” the Sun. As always, do not look directly at the Sun to view this event. Safe viewing of the transit will be available at the RPSEC. The transit will begin at 6:04 p.m. on June 5, 2012. The DuPont Planetarium will offer a Transit of Venus planetarium show at 3:30 and 4:30 p.m. and hands-on activities related to the transit at the same time.

General Shows
Adults $4.50 • Seniors $3.50
4K - 12th Grade $2.50

Digistar Shows
Adults $5.50 • Seniors $4.50
4K - 12th Grade $3.50

For more information please visit http://rpsec.usca.edu/planetarium/

Summer Group Programs
The Ruth Patrick Science Education Center & DuPont Planetarium will offer a variety of programs during the months of June, July and early August. We will offer several planetarium shows each month as well as hands-on classroom programs. These programs are for interested groups such as Daycare Centers, Camps, Church Groups, Scout Troops etc.

For more information please visit http://rpsec.usca.edu/summer/ or call Laura Pierce at (803) 641-3313.
Camp Invention Returns to the Ruth Patrick Science Education Center this Summer

The Ruth Patrick Science Education Center and Invent Now, Inc. are pleased to announce that the nationally acclaimed Camp Invention program is returning to Aiken, June 18-22. First started in 1990, Camp Invention is a week long summer day program for children entering grades one through six that engages children to discover their own innate creativity and inventiveness through hands-on science, technology, engineering, and mathematics (STEM) content.

“We are focused on infusing the love of STEM subject areas with hopes of helping to address a critical shortage of scientists and engineers in the workforce of the 21st century,” explains John Hutchens, Director of Special Programs at the Ruth Patrick Science Education Center. “Camp Invention nurtures creative thinking in children, providing them with open-ended opportunities to explore ideas, make mistakes, and reinvent solutions.”

Each day, children rotate through four integrated modules that employ creative thinking to solve real-world challenges. Children learn vital 21st century life skills such as problem solving and teamwork through imaginative play.

In this summer’s Envision program, children will experience different modules including Inventeureka™, Action and Adventure Games™, Magnetropolis™, and I Can Invent: Balloon Burst™. Children will spend their week visiting a faux island to study magnetism, taking a fantasy adventure on the Ci6000 Space Modulator Time Machine, inventing a balloon-bursting machine, and much more! Even if a child has participated in the past, he or she will benefit from brand new adventures throughout the week.

Aiken County educators and district employees receive $30 OFF the base price of $215. Please email johnh@usca.edu for a special host district registration form. Every program participant receives a coveted Camp Invention T-shirt that features clever, new artwork each year.

To register a child for the program or to learn more about Camp Invention, visit www.campinvention.org or call 800.968.4332.

Since Camp Invention’s inception, the program has grown to include over 1,200 school partnerships in 49 states. In 2011, more than 76,000 children participated nationwide. Camp Invention was created in partnership with the United States Patent and Trademark Office, which continues to support Invent Now’s mission to inspire creativity and inventive thinking in children of all ages.
This Summer... 
Take an 
Adventure
in Discovery, Creativity, Innovation

CAMP SUCCESS
Promoting Career Exploration
July 9-13, 2012; 9:00am-4:30pm
Aiken Technical College
USC Aiken
Ruth Patrick Science Education Center

At Camp Success, creativity takes shape, brain cells power the imagination, and fun and discovery join forces for awesome results. Be a part of this amazing, fun-filled adventure. Camp Success promotes career exploration at a learning day camp for students entering grades 7 and 8. The program helps students develop the creative, innovative thinking skills behind the latest inventions and technologies.

Camp Success will be held on the campus of Aiken Technical College and USC Aiken’s Ruth Patrick Science Education Center. Hands on laboratory experiences combined with recreational activities, academic study, and field trips make Camp Success an unforgettable experience.

For More Information and application:
Sharon@silvercrescentsc.org
803 -657-6183
www.campsuccess.org

FREE Teacher Resources and Visiting Scientists Available

The Traveling Science and Mathematics Demonstrations Program has over 300 science and math kits available for use in the classroom. Supplement your curriculum with nationally recognized and state adopted exemplary materials. Kits have been correlated to SC state standards. Many kits contain children’s literature so that you can integrate your science and language arts lessons.

In addition to these resources, you can request a visiting Scientists with Traveling Resources and Neat Demonstrations (STRAND) volunteer for classroom presentations.

For more information please visit
http://rpsec.usca.edu/travelingscience
## Adopt an Animal

The Ruth Patrick Science Education Center is looking for sponsors to help support the cost of feeding and caring for the animals used in our K-12 educational programs. An animal may be adopted by an individual, a business, or a group such as an elementary school class or a scout troop. The sponsors’ names will be displayed with the adoptee, and they will be recognized in the Center’s publications and website as Friends of the RPSEC. Donations are tax deductible; sponsorship opportunities for 2012 are listed below. For more information, please contact Deborah McMurtrie at DeborahMc@usca.edu or (803) 641-2834.

### BIRDS

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Location</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barred Owl (Strix varia)</td>
<td>Non-releasable male</td>
<td>Raleigh</td>
<td>$500</td>
</tr>
<tr>
<td>Eastern Screech Owl (Megascops asio) red phase</td>
<td>Non-releasable male</td>
<td>Winston</td>
<td>ADOPTED by Ms. Barbara Fenstermacher</td>
</tr>
<tr>
<td>Eastern Screech Owl (Megascops asio) grey phase</td>
<td>Non-releasable female</td>
<td>Salem</td>
<td>ADOPTED by Dr. &amp; Mrs. Gary Senn</td>
</tr>
</tbody>
</table>

### REPTILES: CROCODILIANS

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Location</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Alligator (Alligator mississippiensis)</td>
<td>Female, hatched 2009</td>
<td>Caroline</td>
<td>ADOPTED by Bruce &amp; Karen Morgan</td>
</tr>
<tr>
<td>American Alligator (Alligator mississippiensis)</td>
<td>Male, hatched 2009</td>
<td>Tex</td>
<td>ADOPTED by John M. Hutchens</td>
</tr>
</tbody>
</table>

### REPTILES: SNAKES

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Location</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Kingsnake (Lampropeltis getula getula)</td>
<td></td>
<td></td>
<td>$100</td>
</tr>
<tr>
<td>Northern Pine Snake (Pituophis melanoleucus melanoleucus)</td>
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<tr>
<td>Grey Rat Snake (Elaphe obsoleta spiloides)</td>
<td></td>
<td></td>
<td>$100</td>
</tr>
<tr>
<td>Corn Snake (Elaphe guttata)</td>
<td></td>
<td></td>
<td>ADOPTED by Tristan Davis</td>
</tr>
<tr>
<td>Albino Corn Snake (Elaphe guttata)</td>
<td></td>
<td></td>
<td>$100</td>
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### REPTILES: TURTLES

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<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Location</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Turtle (Terrapene carolina carolina)</td>
<td></td>
<td></td>
<td>$75</td>
</tr>
<tr>
<td>Snapping Turtle (Chelydra serpentina)</td>
<td></td>
<td></td>
<td>ADOPTED by Mr. &amp; Mrs. James Ferrell</td>
</tr>
<tr>
<td>Painted Turtle (Chrysemys picta picta)</td>
<td></td>
<td></td>
<td>$75</td>
</tr>
<tr>
<td>Chicken Turtle (Deirochelys reticularia)</td>
<td></td>
<td></td>
<td>$75</td>
</tr>
<tr>
<td>Red-Eared Slider Turtle (Trachemys scripta elegans)</td>
<td></td>
<td></td>
<td>ADOPTED by Anna Flaherty</td>
</tr>
<tr>
<td>Red-Eared Slider Turtle (Trachemys scripta elegans)</td>
<td></td>
<td></td>
<td>$75</td>
</tr>
<tr>
<td>Yellow-Bellied Slider Turtle (Trachemys scripta scripta)</td>
<td></td>
<td></td>
<td>$75</td>
</tr>
</tbody>
</table>

### AMPHIBIANS

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barking Tree Frog (Hyla gratiosa)</td>
<td></td>
<td>ADOPTED by Drs. Carol and Bob Botsch</td>
</tr>
<tr>
<td>Green Tree Frog (Hyla cinerea)</td>
<td></td>
<td>$50</td>
</tr>
<tr>
<td>Gray Tree Frog (Hyla versicolora)</td>
<td></td>
<td>$50</td>
</tr>
<tr>
<td>Southern Leopard Frog (Rana uralensis)</td>
<td></td>
<td>ADOPTED by Dr. Guy &amp; Mrs. Mary Lynn Henry</td>
</tr>
<tr>
<td>Southern Toad (Bufo terrestris)</td>
<td></td>
<td>$50</td>
</tr>
<tr>
<td>Spotted Salamander (Ambystoma maculatum)</td>
<td></td>
<td>$50</td>
</tr>
<tr>
<td>Tiger Salamander (Ambystoma tigrinum)</td>
<td></td>
<td>ADOPTED by Robert Flaherty</td>
</tr>
</tbody>
</table>
**Become a Galactic Guardian for 2012**

How would you like to adopt a celestial object and be its Galactic Guardian for a year? There are a number of celestial objects that need a caring person, family or group to look out for their best interests over the next year. Additionally, you will have the opportunity to support programming at the Ruth Patrick Science Education Center with your tax-deductible donation. For more information, please call the main office at 803-641-3313 or email RPSEC@usca.edu.

### $400 level:
1. Sun - *Adopted by Sarah Patterson*
2. Moon
3. Milky Way

**Planets:**
4. Mercury
5. Venus
6. Earth
7. Mars
8. Jupiter
9. Saturn
10. Uranus
11. Neptune
12. Pluto (Dwarf $399.99)

### $150 level:
13. Virgo
14. Libra
15. Scorpius - *Adopted by Dr. & Mrs. Gary Senn*
16. Ophiuchus - *Adopted by Dr. & Mrs. Kenneth Perrine*
17. Sagittarius
18. Capricornus
19. Aquarius - *Adopted by Dr. & Mrs. Kenneth Perrine*
20. Pisces
21. Aries
22. Taurus
23. Gemini
24. Cancer
25. Leo

### $100 level:
26. Andromeda the Princess
27. Aquila the Eagle
28. Auriga the Charioteer
29. Bootes the Herdsman
30. Canis Major the Big Dog
31. Canis Minor the Little Dog - *Adopted by Scott & Dianne Nicholson*
32. Cassiopeia the Queen - *Adopted by Mr. Barry & Mrs. Deborah Shedrow*
33. Cepheus the King - *Adopted by Mr. Barry & Mrs. Deborah Shedrow*
34. Crux the Southern Cross
35. Cygnus the Swan, Northern Cross
36. Draco the Dragon
37. Hercules
38. Lyra the Harp - *Adopted by Dr. & Mrs. George Caskey, Jr.*
39. Orion the Hunter - *Adopted by Dr. & Mrs. Robert Buckley*
40. Pegasus the Flying Horse
41. Perseus the Hero
42. Ursa Major, Big Dipper
43. Ursa Minor, Little Dipper - *Adopted by Ethan & Preston Feaster*

### $75 level:
44. Cat’s Eye Nebula, NGC 6543
45. Cat’s Paw, NGC 6914
46. Crab Nebula, M1
47. Dumbbell Nebula, M27
48. Flame Nebula, NGC 2024
49. Helix Nebula, NGC 7293
50. Horsehead Nebula B33, IC434
51. Horseshoe Nebula, M17 - *Adopted by Dr. & Mr. Walter Gramling, Jr.*
52. Lagoon Nebula, M8
53. Orion Nebula, M42 - *Adopted by Sarah Patterson*
54. Owl Nebula, M97 - *Adopted by John & Deborah McMurtrie*
55. Pillars of Creation (M16)
56. Ring Nebula, M57
57. Rosette Nebula, NGC 2237
58. Saghita the Arrow
59. Stellar Spire (M16)
60. Trifid Nebula, M20
61. Andromeda Galaxy, M31
62. Black Eye Galaxy, M64
63. “Cigar” Galaxy, M82
64. Pinwheel Galaxy, M101
65. Sombrero Galaxy, M104
66. Sunflower Galaxy, M63
67. Tadpole Galaxy, UGC 10214
68. Whirlpool Galaxy, M51

### $50 level:
70. Centaurus
71. Cetus the Sea Monster
72. Columba the Dove
73. Corona the Crown
74. Corvus the Crow
75. Delphinus the Dolphin
76. Lepus the Hare
77. Monoceros the Unicorn
78. Sagitta the Arrow
79. Albireo, a double star
80. Beehive cluster
81. Alcor & Mizor, double stars
82. Hercules globular cluster
83. Pleiades, the Seven Sisters
84. Polaris, the North Star - *Adopted by Brooke Nicholson*

### Brightest Stars:
85. Aldebaran - *Adopted by Dr. Paul & Mrs. Moncia Dainer*
86. Altair
87. Antares
88. Arcturus
89. Betelgeuse
90. Capella
91. Castor
92. Deneb
93. Fomalhaut
94. Pollux - *Adopted by Dr. Kenneth & Mrs. Nancy Harrington*
95. Procyon
96. Regulus
97. Rigel
98. Sirius
99. Spica
100. Vega
CALL FOR NOMINATIONS

The Ruth Patrick Science Education Center is seeking nominations for the Spirit of Ruth Patrick Award and the Robert E. Alexander Outstanding Administrator of the Year Award. If you know a teacher or school administrator who fits the criteria below, please nominate them for an award. Nominations must be received by May 15, 2012 to be considered for this year’s award. Biographical sheets will be sent to each nominee and the RPSEC Advisory Board will determine the winner. If you have any questions, please call Laura Pierce at 803-641-3313 or contact her by email at LauraP@usca.edu.

Spirit of Ruth Patrick Award

Since 2006, this prestigious award has been presented annually to a K-12 educator who has demonstrated a keen interest in mathematics and science and has been effective in providing meaningful learning for K-12 students. This award recognizes a teacher in the CSRA who demonstrates a passion for teaching and infusing a love of science, technology, engineering and mathematics. In 1986 the RPSEC was named for Dr. Ruth Patrick, a world renowned scientist who developed a way to test the water quality of the Savannah River while the Savannah River Site was built in the early 1950s.

Previous Winners of the Spirit of Ruth Patrick Award:

2006 Susie Yonce, Edgefield County
2007 Helen Campbell, Aiken County
2008 Ellen Cotton, Aiken County
2009 Beth Eberhard, Aiken County
2010 Debbie Courtney, Edgefield County
2011 Debra Rood, Aiken County

Robert E. Alexander Outstanding Administrator of the Year Award

The University of South Carolina Aiken and the Ruth Patrick Science Education Center are accepting nominations for the annual Robert E. Alexander Outstanding Administrator of the Year Award. This prestigious award recognizes administrators in the CSRA for their efforts and support of bringing full awareness to math and science education, and using the resources of the RPSEC to help meet science and math standards. Recipients of the award are also individuals who encourage teachers to work with the RPSEC to develop skills needed for science and math instruction.

Previous Robert E. Alexander Outstanding Administrator of the Year Award Winners:

2001-02 Hannah Fowler, Columbia County
2002-03 Dr. Karen Blanset, Aiken County
2003-04 Dr. Deborah Bass, Aiken County
2004-05 Michele Connor, Aiken County
2005-06 Dr. Sharon Keesley, Edgefield County
2006-07 Alexia Clamp, Barnwell County
2007-08 Stacy Mabray, Richmond County
2008-09 Dr. Angela Burkharter, Aiken County
2009-2010 Teresa G. Reid, Barnwell County
2010-2011 Dr. Elizabeth Everitt, Aiken County
The Ruth Patrick Science Education Center thanks the following individuals, corporations, and organizations for their generosity and support of our mission by being a Friend of the RPSEC. For information on how you can become a Friend, please call (803)641-3313.
Masters Degree in Educational Technology
Earn Your USCA Degree Online

Do you enjoy using your computer? Do others ask you how to do something on their computers? Do you enjoy showing others something new on your computer? Have you considered getting a masters degree? Then maybe it is time for you to consider the Masters of Education in Educational Technology (MEd Tech). The MEd Tech program at University of South Carolina Aiken (USCA) and the University of South Carolina (USC) Columbia is accepting applications for enrollment. For more information visit http://edtech.usca.edu/.

The focus of the program is to develop capabilities essential to the effective design, evaluation, and delivery of technology-based instruction and training (e.g., software development, multimedia development, assistive technology modifications, web-based development, and distance learning) in order to (1) prepare educators to assume leadership roles in the integration of educational technology into the school curriculum, and (2) to provide graduate-level instructional opportunities for several populations (e.g., classroom teachers, corporate trainers, educational software developers) that need to acquire both technological competencies and understanding of sound instructional design principles and techniques.

Anyone interested in enrolling in this program should contact Karen Morris at 803-641-3489.

RPSEC Environmental Science Award presented to Celeste Thompson and Clarissa Thompson from Alleluia Community School

The 2012 CSRA Regional Science and Engineering Fair was held on March 10, 2012 at USCA. There were nearly 200 projects from CSRA schools displayed at the fair. Each year, the RPSEC presents an environmental science award in honor of Dr. Ruth Patrick. Dr. Patrick pioneered work in the study of fresh water ecosystems and developed methods for measuring the health of these systems.

This year, the RPSEC Environmental Science Award was presented to Celeste Thompson (grade 8) and Clarissa Thompson (grade 6) from Alleluia Community School. The title of their project was “The Implosion of Erosion.” The purpose of the project was to determine if the addition of various aggregates, such as gravel, to sand is conducive to reducing erosion and if lawns with taller grass reduce erosion more efficiently than lawns with shorter grass. The hypothesis of the project was, “lawns with tall grasses and permeable soil reduce erosion and retain storm water most effectively.”

Congratulations to Nathan A. Schmitz, a home schooler, for winning Best in Show. Nathan will now compete at the International Science and Engineering Fair in Pittsburgh, Pennsylvania from May 13-18. The Best in Show award includes an all-expenses-paid trip for Nathan and his parent.

Foundational Core Courses (6 hours)
AERM/EDRM 700 – Introduction to Research in Education
AEET/EDET 709 – Applications of Learning Principles

Design Courses (15 hours)
AEET/EDET 603 – Design and Development Tools I
AEET/EDET 703 – Design and Development Tools II
AEET/EDET 722 – Instructional Design and Assessment
AEET/EDET 755 – Design and Evaluation of Information Access and Delivery
AEET/EDET 793 – Advanced Instructional Design and Development

Technology Core Courses (12 hours)
AEET/EDET 650 – Internship in Educational Technology
AEET/EDET 735 – Technological Applications for Diverse Populations
AEET/EDET 746 – Management of Technology Resources
AEET/EDET 780 – Seminar in Educational Technology

Electives (3 hours chosen from the following courses)
AEET/EDET 652 – Design and Evaluation of Games and Simulations
AEET 731 – Instructional and Informational Applications of Technology or EDTE 731 – Integration of Technology and Instruction
SLIS 706 – Introduction to Information Technologies
TSTM 790 – Advanced Study in Technology Support/Training Management
### JUNE

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| **Mathematics Teachers**  
Grades 6-12  
- Allendale County  
- Bamberg School District 2  
- Aiken County Public Schools  
- Barnwell 19 School District | **TI-Nspired Secondary Mathematics Institute**  
ITQ PRIME TIME on Achievement Project | June 4-7 & 11-14, 2012 | Ruth Patrick Science Educ. Center Room 131 | Please email intent to participate to GwenJ@usca.edu. Deadline: 4/15/12 |
| **Middle School Teachers**  
(All Districts) | **Effective Use of Assessment Tools** | June 11 & 12, 2012 | Ruth Patrick Science Educ. Center | Registration Deadlines: April 20 (CE-MIST Schools). May 11 (Open registration, as available) |
| **High School Teachers**  
- Aiken County Public Schools | **Unwrapping Common Core State Standards**  
*Algebra I and Algebra II Summer 2012 Institute* | June 18-21, 2012 | USC Aiken Convocation Center, VIP Room | Registration Deadline: Monday, May 7, 2012. Contact Rashelle Stokes rstokes@aiken.k12.sc.us to register |
| **Elementary School Teachers**  
- Aiken County Public Schools | **Unwrapping Common Core State Standards**  
*Grades 3-5 Fractions Summer 2012 Institute* | June 25-28, 2012 | USC Aiken Convocation Center, VIP Room | Registration Deadline: Monday, May 7, 2012. Contact Rashelle Stokes rstokes@aiken.k12.sc.us to register |

### JULY

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| **Elementary School Teachers**  
(All Districts) | **Common Core State Standards – Mathematics**  
*Grades 3-5* | July 9-12, 2012 | Ruth Patrick Science Educ. Center, Rm. 117 | Registration Deadline: Monday, May 28, 2012. Please send email to GloriaA@usca.edu if you are interested. |
| **Mathematics Teachers**  
Grades 6-12  
- Allendale County  
- Bamberg School District 2  
- Aiken County Public Schools  
- Barnwell 19 School District | **ITQ Algebra Institute for Teachers, Part 2**  
PRIME TIME on Achievement Project | July 16-19 & 23-26, 2012 (tentative) | Ruth Patrick Science Educ. Center Room 131 | Please email intent to participate to GwenJ@usca.edu. Deadline: 4/15/12 |
| **High School Teachers**  
(All Districts) | **Common Core State Standards**  
*Algebra I and Algebra II* | July 23-26, 2012 | USC Aiken Conference Center, Rm. 122 | Registration Deadline: Monday, May 28, 2012. Please send email to GloriaA@usca.edu if you are interested. |
| **Middle School Teachers**  
(All Districts) | **Common Core State Standards - Mathematics**  
*Grades 6-8* | July 30 – August 2, 2012 | Ruth Patrick Science Educ. Center, Rm. 117 | Registration Deadline: Monday, May 28, 2012. Please send email to GloriaA@usca.edu if you are interested. |

**DETAILED INFORMATION AVAILABLE:**  
HTTP://RPSEC.USCA.EDU/WORKSHOPS/
TI-Nspired Secondary Mathematics Institute

**ITQ PRIME TIME on Achievement Project**

**June 4-7 & 11-14, 2012**

**Who:** Mathematics Teachers Grades 6-12

**When:** Monday - Thursday
8:30 - 4:00 PM

**June 4-7 & 11-14, 2012**

**Where:** USC Aiken
Ruth Patrick Science Educ. Center
Room 131

**Presenter:** Dr. Betty Gasque
National Texas Instruments Consultant

**Cost:** Free to teachers of
Partner School Districts -
Allendale County Schools
Bamberg School District 2
Aiken County Public Schools
Barnwell 19 School District

**Registration:** Space is limited. Please email intent to participate to gwenj@usca.edu. **Deadline: 4/15/12**

**Institute Description**

The **Algebra-Nspired Institute** is a two-week (44-56 hour) professional development experience for middle and high school teachers desiring to understand and teach pre-algebra and Algebra concepts at a deeper level. The TI-Nspire CX handheld graphing calculators and Geometer’s Sketchpad will support the mathematics instruction and learning of a variety of Algebra topics described in the Common Core State Standards. **Teachers completing the two-week institute will receive calculators, computer software, and district-approved stipends**.

During the first week, June 4-7, teacher-participants will learn how to use the spreadsheet, graphing, statistics and assessment functions of this incredible tool to provide relevance and connections within and between high school mathematics topics. They will work with teams of teachers to learn how to increase the cognitive demand of their instruction and use multiple representations with ease as a result of the technology-based instruction. The first week will focus on Algebra concepts typically learned in high school and the second week will target middle school mathematics.

The team of instructors will include USC Aiken faculty and Texas Instruments National Mathematics Instructors. Enrollment priority will be given to teachers who commit to the full 8-day instructional sequence and work in schools of Partner Districts.

* Stipends will be awarded at the discretion of individual school districts to their teachers.
ITQ Algebra Institute for Teachers, Part 2

PRIME TIME on Achievement Project

July 16-19 & 23-26, 2012 (tentative)

Who: Mathematics Teachers
Grades 6-12

When: Monday - Thursday
8:30 - 4:00 PM

July 16-19, 2012

Where: USC Aiken
Ruth Patrick Science Educ. Center
Room 131

Presenters: USC Aiken
Mathematics Dept. &
School of Education
Faculty and Staff

Cost: FREE to math teachers of
Partner School Districts -
Allendale County Schools
Bamberg School District 2
Aiken County Public Schools
Barnwell 19 School District

Teacher Registration: Space is limited.
Please email intent to participate to gwenj@usca.edu.
Deadline: 4/15/12

Summer Algebra Readiness Camp
for Rising 9th Graders
9:00-Noon, July 23-26, 2012
Registration Deadline: May 1, 2012

Free to students who will be enrolled initially in Algebra I in partner schools during the Fall. Institute teachers will implement hands-on strategies for understanding important beginning algebra concepts and foundational fractions concepts and skills. The camp will promote effective use of appropriate technologies for learning how to solve mathematical and real-world problems in fun, classroom settings. Space will be very limited.

Parents are responsible for their children’s lunches. School districts will provide transportation for the 4-day camp.

Improving Teacher Quality Grant:
Projects for Rigorous Instruction in Mathematics Education with Technology Integration for Maximum Effect is on Achievement (PRIME TIME on Achievement) is sponsored by the S.C. Commission on Higher Education (CHE) in collaboration with USC Aiken and Local Education Agencies.
Summer 2012 Common Core Algebra Institute
Specifically Designed for Aiken County
Algebra I and Algebra II Teachers
June 18-21, 2012

Essential Question: How can we ensure that 100% of our students receive daily instruction on appropriate content standards, delivered through a rigorous curriculum, specific to their performance level as indicated by formative assessment?

Institute Overview: The 2012 Algebra Institute will focus on unwrapping the Common Core State Standards (CCSS) in Algebra I and Algebra II. Participants will experience exemplary instructional strategies aligned to the CCSS; examine the Learning Progressions and applications of the Mathematical Practices; and explore online resources provided by SC and other states. These will include Ohio, Maryland, North Carolina and Kentucky CCSS curriculum support documents. Specific activities will involve teachers in reflecting on rigor and relevance in instructional practices and addressing common student misconceptions. Teachers will have an opportunity to examine sample draft content specifications from SMARTER Balanced Assessment Consortium. Experiences will be provided to help eliminate anxiety related to the anticipated shifts in course content and changes in instructional practices. Teachers will begin the 2012 school year prepared to take initial steps in the district's transition from our current 2007 SC Mathematics Academic Standards to the CCSS.

Participants: Up to 25 Middle and High School Algebra I and/or Algebra II Teachers; Preference given to non-Algebra I and Algebra II High School Curriculum and Assessment Teams.

Partners: K-12 and higher education administrators and staff, mathematics master teachers and High School Curriculum and Assessment Team Members, post-secondary instructors and professors, and School District Administration

Incentives: Recertification Credit; $100 per day stipend – As approved by Cabinet

Institute Time Frame: Monday – Thursday, June 18 - 21, 2012; 8:30 AM-3:00 PM

Location: USC Aiken Convocation Center, VIP Room Lunch Will Be Provided

Institute Follow-up: Early Release Wednesdays, September – December 2012 1:30-4:00 PM

Registration Fee: A $25 registration fee payable to Aiken County Public Schools is required. Registration Deadline: Monday, May 7, 2012. Contact Rashelle Stokes rstokes@aiken.k12.sc.us to register.

For more information, please contact:
Dr. Tim Yarborough 803-641-2454 or tyarborough@aiken.k12.sc.us
or Gloria Allen 803-641-3592 or gloriaa@usca.edu

Spaces are Limited! Please Register Early!!!
Summer 2012 Common Core Fractions Institute  
Mathematics Teachers - Grades 3-5  
Specifically Designed for Aiken County Elementary Teachers  
June 25 – 28, 2012

**Essential Question:** How can we ensure that 100% of our students receive daily instruction on appropriate content standards, delivered through a rigorous curriculum, specific to their performance level as indicated by formative assessment?

**Institute Overview:** The 2012 Elementary Institute will focus on unwrapping the Common Core State Standards (CCSS) in Grades 3-5 with an emphasis on fractions. Participants will experience exemplary instructional strategies aligned to the CCSS; examine the Learning Progressions and applications of the Mathematical Practices; and explore online resources provided by SC and other states. These will include Ohio, Maryland, North Carolina and Kentucky CCSS curriculum support documents. Participants will use model lessons to reflect on rigor and relevance in instructional practices and address common student misconceptions about mathematics content. Teachers will have an opportunity to examine sample assessment items and draft content specifications distributed by SMARTER Balanced Assessment Consortium. Experiences will be provided to help eliminate anxiety related to the anticipated shifts in course content and changes in instructional practices. Teachers will begin the 2012 school year prepared to take initial steps in the district’s transition from our current 2007 SC Mathematics Academic Standards to the CCSS.

**Participants:** Up to 60 Elementary Teachers of Grades 3-5. Preference given to school teams of three representing Grades 3, 4, and 5.

**Partners:** K-12 and higher education instructors and professors, elementary mathematics master teachers, mathematics specialists, and School District Administration

**Incentives:** Recertification Credit; $100 per day stipend – As approved by Cabinet

**Institute Time Frame:** Monday – Thursday, June 25 - 28, 2012; 8:30 AM-3:00 PM

**Location:** USC Aiken Convocation Center, VIP Room. Lunch will be provided.

**Institute Follow-up:** Fall and Spring School-Based Teacher-Led Sessions

**Registration Fee:** A $25 registration fee payable to Aiken County Public Schools is required. Registration Deadline: Monday, May 7, 2012. Contact Rashelle Stokes rstokes@aiken.k12.sc.us to register.

For more information, please contact:
Mrs. Janice Kitchings 803-641.2540 or jkitchings@aiken.k12.sc.us
Mrs. Peggy Trivelas 803 641.2447 trivelas@aiken.k12.sc.us
or Gloria Allen 803-641-3592 or gloriaa@usca.edu

**Spaces are Limited! Please Register Early!!!**

Co-sponsored as a partnership initiative among the Aiken County School District,  
The University of South Carolina Aiken- Ruth Patrick Science Education Center,  
and Public Education Partners (through a grant from Honeywell).

Aiken County Public Schools  
Building for a Better Tomorrow – One Child at a Time
**JULY 2012**

**Common Core State Standards - Mathematics**

Grades 3-5 July 9-12, 2012 RPSEC, Room 117  
Algebra I and Algebra II, July 23-26, 2012 USCA Conference Center  
Grades 6-8, July 29 – August 2, 2012 RPSEC, Room 117

**Description:** Participants in each of these institutes will experience exemplary instructional strategies aligned to the CCSS; examine the Learning Progressions and applications of the Mathematical Practices; and explore online resources provided by South Carolina and other states. These will include Ohio, Maryland, North Carolina and Kentucky CCSS curriculum support documents. Participants will use model lessons to reflect on rigor and relevance in instructional practices and address common student misconceptions about mathematics content. Teachers will have an opportunity to examine sample assessment items and draft content specifications distributed by SMARTER Balanced Assessment Consortium. Experiences will be provided to help eliminate anxiety related to the anticipated shifts in course content and changes in instructional practices. Teachers will begin the 2012 school year prepared to take initial steps in the district’s transition from our current 2007 SC Mathematics Academic Standards to the CCSS.

**Incentives:** Stipends and Recertification Credit as approved by individual school districts

**Institute Time Frame:** Monday – Thursday, 8:30 AM-3:00 PM  Lunch will be provided.

**Institute Follow-up:** Quarterly One-Day Sessions During the 2012-13 School Year

**Registration Fee:** Contingent upon the following options:
1) Individual or Team Participation  
2) Summer Four-Day Institute **only OR**  
   Summer Four-Day Institute **with** Quarterly One-day Follow-up Sessions during the 2012-13 School Year.

Please email your interest in participating to gloriaa@usca.edu. You or your district will subsequently receive a registration form to complete and return with the registration fee based upon your selected options.

**Registration Deadline:** Monday, May 28, 2012.

**For more information, please contact:** Gloria Allen, Coordinator, Professional Learning, Ruth Patrick Science Education Center, USC Aiken, 803-641-3592 or gloriaa@usca.edu.

*Space is limited! Please register early!!!*
CE-MIST Summer Institute

Effective Use of Assessment Tools
In Partnership with Hands On: Real World Lessons for Middle School Classrooms at the University of Tennessee

June 11 & 12, 2012 from 9:00 AM – 4:00 PM (Lunch provided)
Ruth Patrick Science Education Center at USCA

Registration Deadlines: April 20 (CE-MIST Schools). May 11 (Open registration, as available)
$25 Registration fee; $225 Stipend*

Purpose of the Workshop: To use assessment tools effectively and bridging the gap between inquiry-based instruction and standards-based state assessment tests. There will be a focus on Common Core State Standards

Structure of the Workshop: The workshop will be interactive and hands on, utilizing a combination of modeling demonstrations, seminar-style discussions, and strategic work sessions.

Important Information: Participants will benefit from attending the workshop with one or more teammates. However, individuals attending alone will still benefit. Please plan to bring an existing instructional unit to the workshop with you. Also, additional curriculum resources such as copies of the content standards for core subject areas in your grade level, textbooks, and other instructional/classroom resources will be helpful in the creation of your interdisciplinary unit.

Instructors:
Dr. Jennifer Richards, Research Assistant Professor, University of TN
Dr. Amy Beavers, Assistant Professor, Lee University

Teachers will receive a certificate of participation at the completion of the workshop.

*The $25 registration fee and $225 stipend result in a net payment of $200.

Presentations and Awards

Four sessions representing the Center of Excellence in Middle-level, Interdisciplinary Strategies for Teaching (CE-MIST) were presented at the SCMSA conference in Myrtle Beach, South Carolina on March 3, 2012. The presenters included teachers and administrators from Busbee Corbett Elementary Middle School as well as representatives from CE-MIST. The purpose of CE-MIST is to develop and model state-of-the-art in-service and pre-service teacher training programs that concentrate on interdisciplinary curriculum development and implementation at the middle school level. CE-MIST is made possible under a grant from the South Carolina Commission on Higher Education under the auspices of the Education Improvement Act (EIA) Teacher Education Centers of Excellence Grant Program.


Jim Hashimoto Outstanding Service Award. Presented to Dr. Gary J. Senn at the annual meeting of the International Digistar Users Group, Auckland, New Zealand.