

Cover Page A

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12/22/09

# Innovation Zone Competitive Grant Application

RECEIVED  
DEC 22 2009

## Monongalia County Schools

*Technical Education Collaborative*

Monongalia County Technical Education  
Center

**B. Information of Applicant:**

Entity Applying for Innovation Zone Designation

- A school
- One or more schools acting as a consortia
- A group of schools seeking designation across the same subdivision or department of the schools (**4 tech ed teachers; one in each of the following: Cheat Lake Middle, South Middle, Suncrest Middle, and Westwood Middle**)
- A school seeking designation of a subdivision or department
- A higher education institution

Name of Entity Applying: **MTEC**

County: **Monongalia**

Superintendent: **Dr. Frank Devono**

Number of Professional Personnel: **36**

Number of Service Personnel: **11**

Institution of Higher Education:

County Location:

**Policies or Code that Prohibit or Constrain the Design:**

- \_\_\_\_\_ *Waiver Requested of County Policy:* \_\_\_\_\_
- X   *Waiver Requested of WVBOE Policy or Regulation: Policy 2510* \_\_\_\_\_
- \_\_\_\_\_ *Waiver Requested of Statute:* \_\_\_\_\_
- \_\_\_\_\_ *N/A (No Waiver Requested)*

• **Planning Narrative and Budget Page:**

- The budget narrative should clearly be tied to the project design.
- The budget narrative should describe the basis for determining the amounts shown on the project budget page.
- The budget page must list the anticipated activities and the amount of money dedicated to those activities.

(This section is not required of institutions of higher education in their application or plan).

## C. Narratives for the Innovation Zone Application:

### Project Design

#### Assessment of Improvement Needs

Since 2004, enrollment in Career and Technology Education (CTE) classes throughout the state of West Virginia have been in decline. In Monongalia County, there are a number of barriers for students wishing to participate in classes offered at Monongalia Technical Education Center (MTEC). Students in area high schools have difficulty with transportation to and from MTEC and may lose an entire class period in order to take classes there. This makes it very challenging for students to meet the number of required courses for graduation while participating in classes at MTEC.

High school requirements are geared toward college-bound students and are often unattainable for students who do not perform well academically. If an alternative path were provided for these students that would permit them to meet high school graduation requirements, students would experience more success and higher graduation rates as a result.

In addition, students in low socio-economic (SES) families are at greater risk of dropping out of school; the high school graduation rate among low SES students in Monongalia County was 16.6% lower compared to their peers in 2008/2009.

During the last academic year, a 9<sup>th</sup> grade academy was established at the county high schools to address the needs of at-risk students. This school-within-a-school provides additional support for at-risk students in a smaller group setting. The teachers are pleased with this model but believe that support for this population of students needs to begin in the middle school years, when poor attendance and academic failure become firmly established.

When reviewing AYP data from the four middle schools, it appears that the needs of at-risk students are not being met under the current system. Suncrest Middle is the only school out of the four meeting AYP; South and Westwood have not met AYP since 2005 and Cheat Lake Middle was successful in meeting AYP only once out of the last 5 years. At all four middle schools, math achievement remains lower than reading. Technology education classes have the advantage of incorporating math skills in real-world situations, benefiting at-risk middle and high school students.

Unfortunately, middle school students who are at-risk of academic failure but may thrive in a hands-on technology education setting only receive six weeks in this area of study. Although Monongalia County Schools offer middle school students this program, it is not required by the state under Policy 2510. There are many other requirements and very little choice, especially for students who are not interested in an academic career path.

Because Technology Education is not required for middle school students, very few middle school instructors choose this program of study. There are limited opportunities for professional development or peer learning. The content standards and objectives for the middle school technology program was approved by the Monongalia County Schools' Board of Education over ten years ago, and has not been updated since that time.

South Middle has noticed an increased interest among at-risk students in Technology Education and students have requested additional time with the Technology Education teacher; this has resulted in a new pilot program being offered to these students beginning in January in conjunction with MTEC, whose campus is within walking distance of the middle school.

This program will provide additional time in the early morning before regular classes begin. These middle school students would actually spend time in the MTEC labs and shops working with CTE teachers at MTEC. This is a small step in addressing the need and interests of middle school students who would benefit from Technology Education instruction.

The needs to be addressed in this Innovation Zone proposal are as follows:

1. support for at-risk middle school students through additional hands-on instruction and mentoring during the school day
2. develop an updated technology education curriculum at the middle school level
3. align the middle school technology education program and the Career and Technology Education program to encourage greater participation in CTE at the high school level
4. allow flexibility in requirements at the middle school level as outlined in Policy 2510 in order to provide additional time during the school day for at-risk students to participate in technology education classes

## **Goals and Objectives**

**Goal 1:** To increase engagement in school of at-risk middle school students through greater involvement in Technology Education and mentoring programs

### **Objectives:**

1 a. To enroll a minimum of 25 students at each of four middle schools in the expanded Technology Education program

1.b. To provide an additional 12 weeks of Technology Education classes for selected students

1.c. To pair each referred student to an adult mentor who will provide a minimum of bi-weekly on-site interaction to support student career interests and academic support

**Goal 2:** To develop middle school Technology Education curriculum to offer hands-on 21<sup>st</sup> Century learning that connects real world job opportunities to their school experience

### **Objectives**

2 a. To develop new Technology Education curriculum to be adopted by Monongalia County Schools and implemented at Cheat Lake, South, Suncrest, and Westwood Middle schools in fall of 2010

2.b. To incorporate mentors from the business community representing career opportunities connected to the new Technology Education curriculum at each of the four middle schools

**Goal 3:** To provide a greater connection between middle and high school level Technology Education programs resulting in increased student attendance and graduation rates among at-risk students

3.a To reduce student absenteeism among selected at-risk students by 25%.

3.b. To increase the high school graduation rate among participating middle school students

3.c To increase student enrollment in MTEC programs in subsequent years by an additional 25 students each year

### **How the innovation is expected to work**

The technology education instructor from four middle schools will collaborate with four colleagues from MTEC on a weekly basis from January through April to develop curricula for 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade students that would extend instruction by 12 weeks for selected at-risk students and align with programs offered through MTEC at the high school level.

During the county's ISE day in February, an experienced consultant in curriculum and instruction related to technology education will work with the curriculum development team to provide guidance in the process. This consultant will follow up through conference calls and email to continue providing support for this work.

There will also be support provided through consultation with an experienced mentor trainer and program developer. An adult mentor program will pair students with adults whose employment relates to their area of interest. Lessons developed for the extended technology education program will incorporate the use of adult mentors during the regular school day. All aspects of this program will be developed prior to fall of 2010.

A site visit to a Citizen School program in Charlotte, North Carolina will be conducted in conjunction with the International Technology Association Conference in March. This conference includes sessions specifically geared to the middle school population. Knowledge gained during this conference and site visit will better inform participating teachers about new trends and ideas related to curricula in this field. The information gathered will be incorporated into plans for students in fall of 2010.

A student selection process will be established, based on the procedure used at the high school level for the 9<sup>th</sup> grade academy to identify at least 25 at-risk middle school students in each middle school to participate in the extended technology education curricula.

There will be a weekend retreat to pull all of the information together and finalize plans for the middle school program.

Students would be selected prior to the beginning of the 2010 school year. Mentor pairs will be established and the new curricula will be implemented in fall of 2010. Participating students will attend the additional weeks of technology education classes in place of classes in one or more of the following areas: music, art, social studies or science. The number and specific classes missed will depend on scheduling according to grade level.

An evaluation component will be included in the program and student progress will be monitored through high school years to determine program impact. Adjustments in future years to graduation requirements may be requested in order to accommodate students' interest in programs of study

related to CTE.

**How does the innovation solve the stated problem or create a new idea?**

There is little importance placed on technology education in the middle school years, although this may be an important avenue of success for at-risk students. Technology education is not a state requirement at the middle school level, yet this hand-on, relevant, real-world approach to education has great potential to keep students engaged in school who may later be in danger of leaving before graduation

In reviewing resources that emphasize technology education, the bulk of literature, programs, and research relate to the high school and not middle school level. Citizen Schools, an after-school program for at-risk middle school students, is an exception. Citizen Schools has a proven track record for increasing high school graduation rates, report card grades and standardized tests in basic subjects. This model emphasizes rigor through additional learning time, relevance through apprenticeships, and relationships through the inclusion of adult volunteers and community leaders.

Citizen Schools is one of very few middle school models based on Career and Technology Education. Although it is an out-of-school time program, this model will be studied and a site visit is planned.

The innovation is to develop an extensive, hands-on technology education program at the middle school level during the school day, incorporating the principals and practices that have been successfully implemented in the afterschool hours.

The idea of middle school technology education instructors working in conjunction with high school level CTE teachers is also an innovation. Opportunities to work collaboratively among schools or middle and high school levels are not currently available.

This innovation addresses the problems outlined in the needs section; new curricula will be developed for technology education at the middle school level, at-risk students will be given alternative programs that provide hands-on learning as well as support from adult mentors, and middle school students as well as instructors will have a greater connection which may create future interest in MTEC courses at the high school level.

**Methods or strategies to be used to achieve the goals and objectives of the innovation**

Instructors in technology education at four middle schools will work in collaboration with four instructors at MTEC to create an updated curriculum for middle school students and an extended program of study for at-risk students in grades 7 and 8.

Best strategies will be incorporated in the plans, in consultation with a curriculum and instruction expert, as well as an experienced trainer and developer of mentorship programs. Participation in the International Technology Education conference, as well as a site visit and consultation with Citizen Schools will assist instructors during the planning process in making informed choices to include rigorous and relevant hands-on activities for students.

At-risk students will be selected in a manner similar to the guidelines used by Monongalia County Schools' 9<sup>th</sup> grade academy prior to fall of 2010. An evaluation of the program will include student surveys, records of attendance, grades, and follow-up at the high school level to determine program effects on class choices, graduation rates, and high school attendance.

**Describe how the provision of greater flexibility and control assists the school in meeting the needs of the school's students.**

Greater flexibility in scheduling and academic requirements for at-risk students in middle and high school will result in greater student engagement in school and motivation to continue their education.

The current model which is designed to support academically proficient students interested in college does not work for all students. Flexibility will improve the chances for students interested in non-academic careers to graduate and be prepared for work that they can accomplish successfully.

**Number of students affected by the project design, and an estimation of the number of professional staff and service personnel affected by the project design**

Each year of the project, one hundred students across the four middle schools would be affected by the project design, with an estimated 10 professionals also being affected.

**How will the proposed innovation change how the school is currently operating?**

The proposed innovation will assist both the middle school at-risk population and the MTEC program in addressing the specific needs of a challenging student population.

Selected middle school students would have more time with hands-on learning provided through technology education by changing their requirements of time in related arts and/or social studies and science.

They would have opportunities to connect with the world of work through adult mentors engaged in their area of interest.

The change would involve scheduling of classes for a specific student population and working more collaboratively among middle school technology education programs as well as with the MTEC high school program.

**Research Base:** This narrative shall discuss and cite the current state of knowledge relevant to the project design. This brief literature review should **indicate why the proposed activities were selected or designed. If the proposal builds on prior work, the narrative should indicate what was learned from this work (either success or failure) and how these lessons learned are incorporated in the proposed design.**

The National Governor's Association (NGA) recently released a report concerning key findings related to drop out prevention after an extensive literature review from across the nation. The report indicates that students from low-income families drop out at four times the rate of students from high-income families in grades 10 through 12. Attendance, behavioral and academic indicators play significant roles in determining who is at-risk of dropping out of school. The four major reasons that students drop out were found to be: academic failure, disinterest in school, problematic behavior, and life events.

Disinterest in school is a key reason dropouts cite for missing classes and leaving school. They did not feel a connection to classes offered during school, or afterschool activities. When students continue to miss school, they become even more disconnected and fall further behind in their coursework.

One of the challenges to improving the drop out rate is students lacking rigorous and relevant options for earning a high school credential. In a state comparison, West Virginia is among states with the lowest compulsory maximum school age of 16.

As the report states, “even with the increase of school models with integrated academic and career-oriented content, an insufficient number are available for U.S. students.”

Among the recommendations in the report, the NGA suggests targeting youth at risk of dropping out and providing rigorous, relevant pathways to a high school credential. They also support identifying students likely to drop out with early warning data systems. They point to middle school as an important transition for at-risk students.

There is evidence to support the role of the Citizen Schools technology-based afterschool model in boosting academic success for middle school students. Since 2001, Citizen Schools has engaged Policy Studies Associates, a national leader in non-profit evaluation, to conduct a longitudinal study of Citizen Schools' program and impact. The study compares students who participate in Citizen Schools after-school programs to similar students who do not participate, following both groups from middle school into high school. Citizen Schools 6<sup>th</sup> and 7<sup>th</sup> graders outperformed a matched peer group on six of seven measures of academic success including higher attendance, lower suspension rate, promotion to the next grade level, grades in math and English and performance on standardized tests.

The Citizen School model has also demonstrated the lasting effect of this model translating into high school success for its participants. Attendance in 9<sup>th</sup> and 10<sup>th</sup> grade as well as grades and performance on standardized tests in English and Math were above their non-participating peers. On-time high school graduation rates were higher (83% vs 59%) among Citizen Schools participants, as was on-time graduates attending 2 or 4 year college (75% vs.42%).

In a search of on-line resources for middle school technology education programs, it appears that the approach advocated by Monongalia County Schools will truly be innovative inasmuch as the bulk of resources focus on high school students. The focus of literature, program models and research is on high school level programs.

References: [www.nga.org](http://www.nga.org)  
[www.citizenschools.org](http://www.citizenschools.org)

## Budget Narrative

### Description of Activity 1

Technology education instructors from each of four middle schools in collaboration with four high school level MTEC instructors will work for 3 hours on a weekly basis from January through April will develop curricula for 6, 7<sup>th</sup>, and 8<sup>th</sup> grade students and include an additional 12 weeks of instruction for selected at-risk students in 7<sup>th</sup> and 8<sup>th</sup> grades

#### **Stipends for teachers:**

8 teachers X \$25 per hour x 3 hours x 12 weeks = **\$7,200**

8 teachers X \$25 per hour x 12 hour weekend retreat = **\$2,400**

**Fringe benefits** for weekly curricula development and weekend retreat  
@ 25% of \$9,600 = **\$2,400**

**Total for activity:** \_\_\_\_\_ **\$12,000**

### Description of Activity 2

A curriculum and instruction expert will provide training and consultation for the Innovation Zone team, beginning February 15<sup>th</sup> in Morgantown with a 6 hr. staff development session and continuing with phone and email consultation throughout the four month planning process.

\$1,800 consultant fees + \$800 travel costs to Morgantown for Feb. 15<sup>th</sup> training session = **\$2,600**

An expert trainer in mentoring and developing mentorship programs will assist in the development of an adult mentor program including forms, procedures, and program structure from January through April of 2010.

\$250 per month consultation fee = **\$1,000**

**Total for activity:** \_\_\_\_\_ **\$3,600**

### Description of Activity 3

The site visit to the Citizen School in Charlotte, North Carolina, in conjunction with attendance at the International Technology Education Conference on March 18<sup>th</sup> – 20<sup>th</sup>, 2010 will inform representative teachers from each of the participating schools about the latest best practices in technology education. Two MTEC instructors, 1 technology education instructor from each school and 2 principals will attend the conference and site visit. The six instructors will also participate in Engineering by Design Labs during the conference.

Registration fees: \$374 per person registration fee x 8 =	<b>\$2,992</b>
Engineering by Design labs \$25 per person per lab x 6 =	<b>\$150</b>
Hotel costs: \$165/night room, 3 nights x 8 =	<b>\$3,960</b>
Hotel parking: \$18 x 3 days x 2 cars =	<b>\$108</b>
Per diem for meals: \$39 per day x 4 days x 8 =	<b>\$1,248</b>
Mileage to the conference: 377 miles x 2 cars x .445 =	<b>\$671</b>
Mileage to the Citizen school 50 miles x 2 cars x .445 =	<b>\$45</b>
Substitutes for Thurs and Fri \$160 x 2 days x 6 teachers =	<b>\$1,920</b>
Fringe benefits for subs (9%)	<b>\$173</b>
<b>Total cost:</b>	<b><u>\$11,267</u></b>
Supplies for all activities:	
Paper, binders, copying of curricula	<b>\$500</b>
<b>TOTAL REQUESTED:</b>	<b><u>\$27,367</u></b>

Monongalia County Schools  
Detailed Budget with Narrative

BUDGET CATEGORY	WVDE Funds
<b>Salary</b>	
Weekly planning meetings for 3 months 8 teachers, \$75 per 3 hour session for 12 sessions	\$7,200.00
Weekend retreat stipends \$300 for two 6 hr days x 8	\$2,400.00
Substitutes for teachers to travel to site visit and International Technology Education conference, \$160 per day x 2 days x 6 teachers	\$1,920.00
<b>Salary sub-total</b>	<b>\$11,520.00</b>
Fringe (25% for teachers)	\$2,400.00
Fringe (9% for substitutes)	\$173.00
<b>Fringe sub-total</b>	<b>\$2,573.00</b>
<b>Supplies</b>	
paper, binders copies of curricula	\$500.00
<b>Travel reimbursement</b>	
2 cars mileage to Charlotte, NC, 377 miles x 2 cars x .445 = \$671.00 plus middle school site visit 50 miles x 2 x .445 = \$44.50; \$39 per diem per day x 4 days x 8 participants = \$1,248.00; conference registration \$374 x 8 participants = \$2,992; Engineering by Design Labs \$25 pre person per lab x 6 = \$150; hotel room = \$165 x 3 nights x 8 participants = \$3,960; parking for 2 cars x 3 daysx\$18 = \$108;	<b>\$9,174.00</b>
<b>Other-Contractual</b>	
<b>Mentor program consultant</b> (development of mentor program, training for instructors from January through April, 2010)	\$1,000.00
Curriculum and Instruction Consultant, \$1,800 for 6 hr. training session and follow up consultation by phone and email during the curriculum development process, \$800 travel, meals and airfare to Moreantown	\$2,600.00
<b>Contractual sub-total</b>	<b>\$3,600.00</b>
<b>TOTAL REQUEST</b>	<b>\$27,367.00</b>

**Certification**  
**School/Schools Staff Commitment**  
**Department/Departments/Subdivision/Subdivisions**  
**Staff Commitment**

**Use this form to report the staff commitment regarding the innovation application and plan. A copy must be forwarded to the Innovation Zone Committee with the application and the plan.**

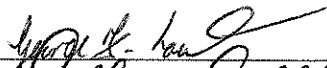
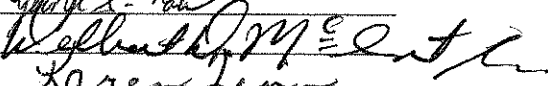

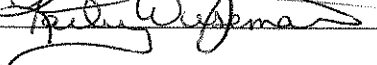
School: MTEC

Department (If Applicable): \_\_\_\_\_

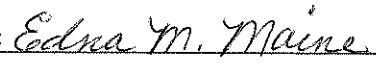
Notice of Meeting (Date provided to Faculty or Department/Subdivision): October 2, 2009

Meeting Date: **December 2, 2009**


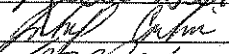
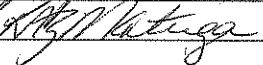
Faculty Senate Elected Officers:

President: (Name) George F. Law	Signature: 
Vice-President: (Name) Delbert D. McIntyre Jr.	Signature: 
Secretary: (Name) Karen Zinn	Signature: 
Treasurer: (Name) Kathy Wiseman	Signature: 
Other: (Name)	Signature: _____

Service Personnel Representative:

Name: <u>Edna M. Maine</u>	Signature: 
Position: <u>Secretary</u>	

Parent Representatives:

Name: <u>Kelli Gerasimovich</u>	Signature: 
Name: <u>John Carline</u>	Signature: 
Name: <u>Kimberly Matuga</u>	Signature: 

**We certify that 80 percent of the faculty affected by the application/plan has voted to support the application/plan.**

(This report certification is not required of institutions of higher education in their application or plan).

County Board or Boards  
**Report on Innovation Application/Plan**

**Use this form to report the county board or boards and superintendent's support or concerns, or both, about the innovation to the principal and faculty senate. A copy must be forwarded to the Innovation Zone Committee with the application and the plan.**

School: Monongalia County Technical Education Center

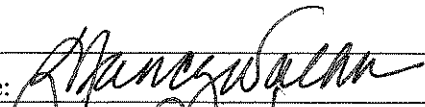
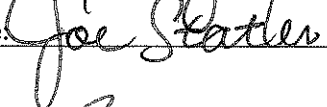

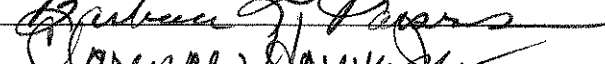
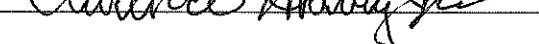
Department (If Applicable): \_\_\_\_\_

Date of School/Department/Subdivision Receipt of Application: November 2009

1. Application/plan must be accompanied by Staff Commitment Certification (Phase 1 and 2)
2. Support evidence from students, parents, local school improvement council and school business partners for the application (Phase 1)

Date of Regularly Scheduled County Board of Education Meeting: December 15, 2009

County Board of Education Elected Officers:

President: Nancy Walker	Signature: 
Vice-President: Joe Statler	Signature: 
Members:	
Name: Michael Kelly	Signature: 
Name: Dr. Barbara Parsons	Signature: 
Name: Dr. Clarence Harvey Jr.	Signature: 

Report: Middle School Technical Education Collaborative

Concerns: \_\_\_\_\_

Report of the local education agency must be forwarded to school/department/subdivision for submission to West Virginia Board of Education with their application/plan).

(This report certification is not required of institutions of higher education in their application or plan).

*Dear Lake*

**Innovation Zone Application  
Official Ballot**

Monongalia County Schools MTEC Proposal

Please place an X on the appropriate line in blue or black ink.

I **support** the MTEC Innovation Zone proposal as presented to me by my principal

I **do not support** the MTEC Innovation Zone proposal as presented to me by my principal

**Please return this ballot in school mail immediately to:**

**John George  
MTEC**

South

**Innovation Zone Application  
Official Ballot**

Monongalia County Schools MTEC Proposal

Please place an X on the appropriate line in blue or black ink.

I **support** the MTEC Innovation Zone proposal as presented to me by my principal

I **do not support** the MTEC Innovation Zone proposal as presented to me by my principal

**Please return this ballot in school mail immediately to:**

**John George  
MTEC**

*Success*

**Innovation Zone Application  
Official Ballot**

Monongalia County Schools MTEC Proposal

Please place an X on the appropriate line in blue or black ink.

I **support** the MTEC Innovation Zone proposal as presented to me by my principal

I **do not support** the MTEC Innovation Zone proposal as presented to me by my principal

**Please return this ballot in school mail immediately to:**

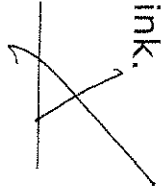
**John George  
MTEC**

*Westwood*

**Innovation Zone Application  
Official Ballot**

Monongalia County Schools MTEC Proposal

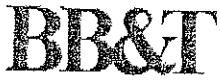
Please place an X on the appropriate line in blue or black ink.

  
I **support** the MTEC Innovation Zone proposal as presented to me by my principal

\_\_\_\_\_  
I **do not support** the MTEC Innovation Zone proposal as presented to me by my principal

**Please return this ballot in school mail immediately to:**

**John George  
MTEC**



Branch Banking & Trust Co.

Human Systems Division  
466 High Street  
Morgantown, WV 26505

State Board of Education,

During our recent quarterly General Advisory Council meeting, John George, principal of MTEC presented material on the Innovation Zone. The General Advisory Council at MTEC is comprised of faculty, administrators, academic advisors, representatives of business and industry, and labor organizations. As members of the General Advisory Council, we are involved in the development, implementation, and evaluation of career and technical education programs. In addition, we serve as the link between the technical education programs and the business and professional community. As the Chair and the spokesperson of the General Advisory Council, we would like to communicate our support for this proposal to the Board.

After reviewing the Innovation Zone and the programs proposed for MTEC, we are in full support of this initiative and the value it will bring to the community and the students that MTEC serves. The objectives that MTEC seeks to accomplish with these monies will not only benefit the surrounding school systems but the aging population within our community. We urge you approve this proposal and commit to the goals that MTEC has set for the future of our vocational and technical programs.

Sincerely,

Kimberly M. Weber  
BB&T  
Assistant Vice President

**FAXED**  
12/8/09

# SOUTH MIDDLE SCHOOL

A PROFESSIONAL LEARNING COMMUNITY

Dennis G. Gallon  
Principal

Susan E. Heydon  
Assistant Principal

Chad A. Skolny  
Assistant Principal

December 9, 2009

To Whom It May Concern:

We, the undersigned South Middle School students, support the Innovation Zone proposal to allow 8<sup>th</sup> grade students to have more direct involvement with vocational/tech-ed type classes.

1 James Con  
Dylan Gombke

James Macton  
Melissa Hadelochovic

Chelsea Uphad  
Alex Anderson

Jessica Cuppett

Sivara Lariana

Ryoma Dixon  
Kreemter Montgomery

Michael Danko

Josh Rutter

Leife Gifford

Nikki Zava

for Thomas

Rennet Smallwood

Dustin Barnett  
Lucas Moonias  
Georgia McKay

Ciera Bidlow

Sebe Lumentre

Kortni Smosky

Ben Heston

Will Ben  
Anthony Dalton

Wyatt Crites

Gavin Lantz

Susan Dealey

STEVEN ANDERSON

Jimmy Hart

Jami Rison

Mark Lawrence

John George

Michael Jepson

Hannah Neely  
Chelsea Niccum

Jimmy Zebusso

Zackery Mayla

Jotson Bwarette

Josh Campbell

Courtney Dixon

Kasee Stapleton

Dean Cites  
Kendra Barnett

Deshon Gibson  
Nikki McIntyre

Hunter Coker

Randall Wolfe

Billy Neville

# SOUTH MIDDLE SCHOOL

A PROFESSIONAL LEARNING COMMUNITY

Dennis G. Gallon  
Principal

Susan E. Heydon  
Assistant Principal

Chad A. Stolny  
Assistant Principal

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December 9, 2009

To Whom It May Concern:

We, the undersigned South Middle School students, support the Innovation Zone proposal to allow 8<sup>th</sup> grade students to have more direct involvement with vocational/tech-ed type classes.



Maggie Snively

Lean Nurwich

Nick Gallogher

Cody Maurin

Cobun Meyers

Sydrey Holder

Alaine Somberton

Samira Amala

Haskell Hanselman

Amra Smith

Donald Summers

BYRON STEVENS

## **Kelly Keifer Biography**

Kelly Keifer is the Project Director for the Monongalia Mentoring Program. As director, she oversees mentor programs at 7 separate sites in the county. In addition, she is the primary mentor coordinator for one of those sites. She is also responsible for recruiting, mentor/mentee trainings, monthly activities, monitoring her case load of current matches, reporting to the Regional Coordinator for the OJJPD grant, and keeping all personnel, as well as, financial records for the grant.

She is a graduate of West Virginia University with a Bachelor's degree in Art History. Her professional experience includes, two years as a case worker for the Post-Residential Phase of the Mountaineer Challenge Academy and was then hired as one of the Regional Coordinators for the State Mentoring Initiative. As a Regional Coordinator her responsibilities included facilitating, developing, and enhancing mentoring programs in 16 different counties in West Virginia. As a case worker for the program, she monitored and acted as a support system for an average of 40 mentor/mentee relationships every month for a year and then reported her findings to the RPM Coordinator at the Academy.

In addition to her experience with mentor programs, she has over 16 years experience working with youth. This experience includes Prevention/Educational Program Director and Community Liaison at the Mountaineer Boys and Girls Club, secondary school art teacher at P.K. Younge Laboratory & Research School, and several years working as a youth counselor for community after-school and summer programs.

### **Training**

- 1 Completed 2.5 Days of Mentor Program Training At the OJJPD New JUMP Grantee Orientation (Washington, D.C. 2/23/-26/2004)
- 2 Completed 2.5 Days of Mentor Program Training At the Rocky Mountain Mentoring Summit (Denver, CO 5/8-10/2002)
- 3 Certification of Completion by the National Guard Challenge Program for completion of the Regional Mentoring Workshop (Bluegrass Challenge Academy in Fort Knox, KY 5/4/2001)
- 4 Certification of Completion by the National Guard Challenge Program for completion of the Regional Mentoring Workshop (Freestate Challenge Academy in Maryland 4/6/2000)
- 5 Certificate of Completion for completing 4 hours of World View Mentor training and qualification to be a mentor for the Mountaineer Challenge Academy (Mountaineer Challenge Academy Kingwood, WV 4/25/2000)
- 6 Certification of Completion by the National Guard Challenge Program for completion of the Train the Trainer Workshop (Mountaineer Challenge Academy in Kingwood, WV 5/23/2002)

Dr. Pam Page Carpenter  
Project Coordinator-STEM Education  
North Carolina Solar Center  
College of Engineering  
North Carolina State University  
CB 7401  
Raleigh, North Carolina 27695

Dr. Pam Page Carpenter serves as the Clean Energy Program Manager for Education and Workforce at the North Carolina Solar Center in the College of Engineering at North Carolina State University. Her position involves curriculum development, program planning and evaluation, teacher training, outreach, and research and publications in K-20 education for renewable energy technologies and alternative transportation. She oversees the Sustainable Transportation Education Program (STEP), the North Carolina Sustainable Building Design competition, the Mid-Atlantic Joint Solar, train-the-trainer program for photovoltaic and solar heating and cooling, and serves as a Co-PI on the Green Research for Incorporating Data Into the Classroom (GRIDc) project. Dr. Carpenter is a faculty adviser for outreach and education for the NCSU EcoCar Challenge team and serves on multiple committees regarding STEM education, energy, and renewable energy technologies. Dr. Carpenter is Adjunct Assistant Professor in the Technology, Design, and Engineering program in the College of Education at North Carolina State University focusing on renewable energy technology related courses.

As an advocate of environmental issues with a passion for education in Science, Technology, Engineering, and Mathematics (STEM), along with her experience as an instructor and curriculum developer, Dr. Carpenter applies her relevant background to serve as a guide in the development and expansion of existing K-16 programs statewide and additional programs in renewable energy and clean transportation to serve the students and teachers in North Carolina schools and beyond.

**Pam Page Carpenter, Ed.D.**

2570 Bonlee School Road  
Bear Creek, North Carolina 27207  
919-837-5982  
Cell-919-444-1043  
[wisedogs@embarqmail.com](mailto:wisedogs@embarqmail.com)

**Education**

**North Carolina State University, Raleigh North Carolina**  
**Ed.D. in Technology, Design, and Engineering Education with a minor in Curriculum and Instruction.**

Dissertation: Cyber Connections across gender and age: How communication technologies enhance social communication in online learning communities in college level courses.

**North Carolina State University, Raleigh North Carolina**  
**M.Ed. in Adult and Higher Education and 18 graduate hours in Organizational Communication.**

Capstone project: University of North Carolina School of Medicine Instructional Design project for the Adult and Community College Education degree. Communication research: -How does cyberspace affect the sense of community and cultural identity of Hmong refugees? Recreating home through an imagined past and memory in a virtual community. Dr. Steve Wiley-Professor-Adviser.

**North Carolina State University, Raleigh North Carolina**  
B.A. in Philosophy with honors.

**Work History**

Fall 2009-Present

**Adjunct Assistant Professor Appointment-Technology, Design, and Engineering Education in College of Education-North Carolina State University.** Development of an online graduate course to teach renewable energy technologies and energy education.

2007-Present

**Project Coordinator-K-20 STEM Education-** North Carolina Solar Center-College of Engineering-North Carolina State University. Program development and implementation along with outreach to schools, teachers, and students throughout North Carolina to promote learning opportunities available in renewable energy technologies, energy efficiency, and alternative transportation with a Science, Technology, Engineering, and Mathematics (STEM) focus. Curriculum development, program planning and evaluation, teacher training, research and publications, and collaboration with industries, research and development organizations, school districts, Department of Commerce-Workforce Development, Department of Public Instruction, community colleges, and universities along with experience writing and obtaining foundation and federal grants to support programs. This position requires oversight of undergraduate and graduate students to assist in K-16 programs.

## Projects:

- Solar workforce train-the-trainer project to work with seven states to identify potential community college instructors and technical high school teachers to receive intensive training in both online and face-to-face classroom environments.
- Workforce Development working with Department of Commerce and Economic Development boards responsible for developing statewide curricula on green workforce for North Carolina.
- Director for North Carolina Sustainable Building program for community college and universities promoting green and sustainable building practices to prepare students enter the workforce with real world applications.
- Program development and outreach for Junior Solar Sprint middle school program. Responsible for developing the program from six schools in 2007 to twenty-six schools in 2008 and fifty-four schools in 2009. Provide teacher training and support throughout the year. Responsible for coordination and implementation of the final competition at NC State where approximately five-hundred students, teachers, parents, and the public are involved in the event.
- Program development and outreach for Students Making Advancements in Renewable Transportation (SMARTT) Challenge high school electric vehicle and plug-in hybrid electric vehicle program.
- Revised existing and created new material for the SMARTT Challenge comprehensive curriculum which includes the disciplines of STEM and renewable energy technologies for high school teachers and students participating in the program.
- Co-Principle Investigator on National Science Foundation-Green Research Incorporating Data into the Classroom (GRIDc) for undergraduate Engineering, Technology Education, and Science Education students.
- Program Manager and curriculum developer for new plug-in hybrid electric vehicle (PHEV) class program for high school students in the alternative fuel and transportation program.
- Outreach and work with community colleges and the Systems office to assist in green training and jobs.
- Principle Investigator for the North Carolina Education Network Resource for Green and Renewable Energy Technologies (NC-ENR-GRET) which will provide the first of online resources and activities in renewable energy technologies for North Carolina teachers and students through the North Carolina Solar Center K-12 website. The online resources will incorporate the concepts of STEM providing an opportunity for middle and high school students to access information and learn about renewable energy technologies, solar, photovoltaic systems, solar thermal, passive and active solar, alternative transportation, wind, and other appropriate technologies.
- Mentor for Kenan Fellow from the Kenan Institute of Engineering, Technology and Science to assist in developing alternative transportation and fuels instructional unit for high school science teachers.
- Serve on university committees and external committees

- Continue to lead and facilitate community college outreach to create a green workforce development working group to collaborate on funding opportunities and programs.
- Developed curriculum for the Hydrogen Internal Combustion Engine pilot program for a high school located in a Tier One county.
- Developed online materials, activities, and resources for teachers and students in K-12.
- Collaboratively working on 3D virtual world for Solar Center through Wolflands Second Life.
- Programs funded through grants submitted by Carpenter and Carpenter and colleagues. Continue to seek funding opportunities and write proposals for federal, foundation, and state grants.
- Complete reports for various funding agencies in addition to administrative duties associated with this position.

### **Grants Awarded**

1. Department of Energy-Solar workforce training for community college instructors in seven states. PI (\$3,000,000.00)
2. National Science Foundation-GRIDc-Phase II-Co-PI (\$400,000.00)
3. National Science Foundation-Green Research for Incorporating Data into the Classroom (GRIDc) Phase I Co-PI
4. Distance Education Learning Technologies-Developing online graduate course in renewable energy technologies (PI) (\$12,000.00)
5. Advanced Energy-Sustainable Building Competition (PI) (\$80,000.00)
6. Progress Energy – Plug-in hybrid electric vehicle (PI) (\$30,000.00) Years 1 and 2.
7. NCSU Extension, Engagement, and Economic Development-Virtual Solar House Development and new website. PI (\$10,000.00)
8. Burroughs Wellcome Fund-Junior Solar Sprint. Co-PI. (\$150,000.00)

### **Contract Instructional Design Projects**

- North Carolina State University (NCSU)-Faculty Center for Teaching and Learning-“Online pedagogy”.  
Researched, created, and developed five online modules to inform NCSU faculty about instructional strategies, assessment, learning styles, syllabus development, effective course design, learning theories, online communications, and online teaching presence regarding online teaching.  
(Contract position)
- Central Carolina Community College-Faculty online modules on “Excellence in the Classroom”. Researched, wrote, and developed five online modules for implementation across the state of North Carolina teaching community college instructors pedagogy in the classroom. Topics included: adult learning theory, specifics of teaching in the classroom and online, instructional strategies, course development, syllabus development, engaging activities, and assessment.  
(Contract position)
- Central Carolina Community College-Online Communication course-“Introduction to Communication”. Developed online course for a college level

- Communications course. Modules include objectives, course content, virtual group activities, dialogue, peer assessment, graphics, case studies, and authentic assessment using grading rubrics. (Contract position)
- North Carolina State University-School of Engineering LESSONS project-concept mapping training manual. Worked with a group of professors from to develop a training manual in concept mapping to instruct students in engineering how to look for associations among disciplines (Mathematics, Science, English, Chemistry, etc.) and develop more effective study habits. (Contract position)
  - University of North Carolina Chapel Hill-School of Medicine-Integrative Medicine comprehensive project in all phases of ISD. Worked with the Subject Matter Expert (SME) to do a needs assessment and development of modules integrative medicine to be used by medical, nursing, pharmacy, and health education students at UNC-CH. (Capstone project for M.Ed.)

### **Teaching experience**

**Online Communications instructor**-Central Carolina Community College. Fall 2004-2008. Created and developed course content for the Communications course that is a college level course. Guided students through course by encouraging discussion using open-ended questions that relate to life experiences. Primary activities include: rigorous discussion postings required by students, virtual group work where students may lead a discussion, virtual group work requiring a collaborative research paper with five scholarly sources written in APA style and presented to the class at the end of the semester, peer reviews, along with authentic and traditional assessments.

**Online Adjunct Instructor**- Appalachian State University Department of Educational Leadership-Instructional Technology Program - Fall 2006-Internship course with graduate students in the Education Department at Appalachian State University. Facilitated and guided students in projects implementing technologies into school curriculum using 3D Activeworlds (online) as the platform for an online learning environment.

**Online Communication instructor**-Randolph Community College-2004-2007. Wrote and developed course content for the Communications course. Primary responsibilities included guiding student through course by encouraging critical thinking by posing open-ended questions in the discussion area along with traditional assessment.

#### **Central Carolina Community College-1996-2008.**

- Online Communication instructor 2004-2008.
- Instructor-Broadcasting Production-Speech, broadcasting writing, and broadcasting sales.
- Instructor-Computer Technology Program January 2002-May 2002
- Instructor-English as a Second Language (Beginning, Intermediate, and Advanced) January 2001-December 2001
- Marketed Workplace Literacy 2001
- Administration of Comprehensive Adult Student Assessment System (CASAS) 2001
- Botanical Medicine Educator 1999-2001
- Sustainable and Vegetarian Cooking Instructor 1998
- Educator/Instructor Adult High School 1996-1997

## Committees

- President-North Carolina Technology Teachers' Education Council 2009-2010.
- Invited to serve on State Energy Partnership Advisory board.
- Faculty Adviser-EcoCAR Challenge-serve as Outreach and Education faculty adviser for engineering students to design and build an alternative vehicle funded by GM and Department of Energy.
- Invited to participate as an advisory board member for NC State Sector Energy Partnership program.
- Proposal review team for Extension, Engagement, and Economic Development at NC State.
- Advisory Board-Biofuels Associate Degree program at Central Carolina Community College.
- K-20 committee for the North Carolina Biofuels Center.
- Advisory board-Fayetteville State University Mathematics Science Education Network (MSEN).
- Proposal review team member for the North Carolina Department of Commerce-Green technologies.
- University Sustainability committee.
- University Standing Committee for Extension, Engagement, and Economic Development (EEE) under the direction of Dr. Jim Zuiches, Vice Chancellor for EEED.
- Program assessment and evaluation outreach and extension working group.
- Ad Hoc Noncredit Distance Education
- Pre-College Council North Carolina State University

## Graduate Assistant Research Experience

**Research Assistant**-Dr. Terri Varnado-Science, Mathematics, & Technology Education department at North Carolina State University. January-April 2006.

**Research Assistant**- National Initiative for Leadership and Institutional Effectiveness (NILIE) at North Carolina State University School of Education in 2002.

## Research

- Students' metacognition interpreting data in the classroom.
- Student engagement and immersion of cooperative learning experiences in renewable energy programs.
- Wikis as virtual teacher communities to promote dialogue and ideas in new programs.
- Wikis as a collaborative e-service learning tool in online courses.
- Cyber Connections across age and gender: How social communications enhance online learning communities through online college courses.
- Developing cyber learning communities to promote critical thinking and collaborative work in an online environment.
- How does cyberspace affect the sense of community and cultural identity of Hmong refugees? Recreating home through an imagined past and memory in a virtual community.
- Pilot study of herbal medicine students at Central Carolina Community College in Pittsboro, North Carolina. How does enrollment in an herbal medicine class affect consumer decision making when purchasing herbal products?
- Hmong refugees in North Carolina-How does the physical and virtual space that Hmong are creating affect cultural identity?

## **Certifications, Workshops and Conferences 2007-2009**

- EcoCAR Challenge workshop hosted by General Motors-Pontiac, Michigan. January 2009.
- EcoCAR Challenge workshop hosted by General Motors University-Detroit, Michigan. September 2008.
- SMARTT Challenge Final Event-May 2008. Coordinated Junior Solar Sprint with twenty-six schools participating in solar car races at North Carolina State University.
- Emerging Scholars Outreach and Engagement Conference-Madison, Wisconsin.
- Certificate Series at North Carolina Solar Center-North Carolina State University-Wind Energy and Turbines. Manteo, North Carolina.
- National Energy Education Development Conference certification in science and energy. Washington, D.C.
- National Science Foundation Science, Technology, Engineering, and Mathematics Conference. The Friday Institute-North Carolina State University.
- NC Mobilizing on alternative fleet transportation.
- Career Technical Education State Conference-served as an "Environmental Challenge" judge 2006, 2007, and 2008.
- Coordinated and facilitated statewide wind energy workshop for North Carolina educators.
- Assisted with coordination and judging of Junior Solar Sprint and Electric Vehicle Challenge programs at North Carolina State University.
- Assisted with the coordination of Electric Vehicle Challenge teacher training program-North Carolina State University.

## **Software and Course Management Systems**

Experience: Moodle, Eluminate, Blackboard, Educator, Activeworlds, SecondLife, WebCT Vista, CourseGenie, wikis, blogs, Captivate 2, SAS 8.0, SAS JMP 6.0, StatCrunch, Word, Excel, PowerPoint, EndNote, CMapping, Inspiration, Dreamweaver, Fireworks, PhotoShop. Hands-one training and exposure: SolidWorks, trueSpace, and Centra.

## **Publications and Presentations**

- Carpenter, P. (2009). Creating a sustainable future through student programs. *Home Energy*. Publication to be released Fall 2009.
- Busby, J. & Carpenter, P. (2009). Teaching students about clean fuels and transportation technologies. *Technology Teacher* 68(7).
- Carpenter, P. Presentation on green workforce for Career Technical Education (CTE) high school coordinators at the CTE annual conference in July 2009.
- Deluca, W., and Carpenter, P. (2009) Presentation at the International Technology Education Association annual conference on "Green Living Labs-the GRIDc project.
- Carpenter, P. & Busby, J. Presentation at International Technology Education Association annual conference on "The virtual Solar House-creating an immersive and interactive website for teachers and students to engage in renewable energy technologies with STEM concepts". March 2009
- Carpenter, P. Opening speaker at the Winter Conference for North Carolina Technology Education Association. February 2009. "Resurrecting the American Spirit through Green Technologies and Workforce-taking it back to the classroom."

- Carpenter, P. Presentation at the Winter Conference for North Carolina Technology Education Association. February 2009. "NC Solar Center K-20 programs and alternative transportation at NC State."
- Carpenter, P. presentation on Solar Center K-12 programs at the "Partners for Access and Success" conference November 6, 2008-North Carolina State University.
- Deluca, W. & Carpenter, P. Poster session on Green Research for Incorporating Data into the Classroom (GRIDc) project at The Association for the Advancement of Sustainability in Higher Education. November 2008.
- Deluca, W. & Carpenter, P. Presentation on "Going Green Research at the North Carolina Solar Center". Southeastern Technology Educators' Association, October 2008-Old Dominion University.
- Carpenter, P. Presentation on wind and solar for Career Technical Education conference-July 2008, Greensboro, North Carolina.
- Carpenter, P. (2008). *Cyber connections in online college courses*. Germany: VDM Verlag.
- Carpenter, P. Presentation on the outcomes of high school programs in STEM and renewable energies at the Renewable Energy Technologies Workforce Development and Training conference. Albany, NY-March 2008.
- Busby, J. & Carpenter, P. Presentation on "Electric and Solar Cars"- International Technology Educator's Association (ITEA) annual conference-Salt Lake City, UT-February 2008.
- Carpenter, P.,& Roberts, E. (2007). Using wikis in online Technology Education college courses. *North Carolina Council on Technology Teacher Education: Technology Education Journal, IX*.
- Carpenter, P., "Expanding Your Horizons" conference sponsored by The Science House at North Carolina State University. Presentation on "Future Vehicles".
- Carpenter, P., RiskFest 2007 sponsored by the USDA. Presentation on "Transportation effects on climate change". May 2007.
- Carpenter, P. & Roberts, E. (2006). *Going wiki in online Technology Education*. Presentation at North Carolina Council of Technology Teachers Association-North Carolina A & T, April 2007.
- Carpenter, P. (2006). Cyber Communications. *Cyber connections across age and gender: How communication technologies enhance social communications in online learning communities*. Poster presentation at the 2007 UNC-Teaching and Learning with Technology Conference.
- Carpenter, P. & Roberts, E. (2006). *Going wiki in online Technology Education*. Poster presentation at the 2007 UNC-Teaching and Learning with Technology Conference.
- Carpenter, P. & Roberts, E. (2006). *Going Wiki in Online Technology Education Courses: Promoting Online Learning and Service Learning through Wikis*. Presentation at the 2007 American Educational Research Association (AERA) Annual Meeting in Chicago, Illinois.
- Carpenter, P. & Roberts, E. (2006). *Going Wiki in Technology Education!* Presentation at the 2007 North Carolina Council Technology Teachers Education Conference-Greensboro, North Carolina.

- Carpenter, P. & Roberts, E. (2006). Wikis Work for Online Tech Ed Courses. *Techlearning*. October 1, 2006.  
<http://www.techlearning.com/story/showArticle.jhtml?articleID=193006217>
- Carpenter, P. (2006). Published dissertation 2006. *Cyber connections across age and gender differences: How communication technologies enhance social communication in learning communities in online college courses*.
- Carpenter, P. & Roberts, E. (2006). *Going wiki in technology education*. Publication Fall 2006 and to be presented at the 3rd Annual League of Worlds (LoW 3) Colloquium.
- Carpenter, P.P. & Raubenheimer, D. (2005). *Online pedagogy*. North Carolina State University.
- Carpenter, P.P. (2005). *Excellence in Teaching*. Online modules developed for the community college faculty under the direction of Celia Hurley, Central Carolina Community College.
- Carpenter, P. P. (2003) *Herbal Medicine Guide for Consumers*. ARF, Inc.
- Carpenter, P. P. (2003) *Fleas, ticks, and other nasty critters*. ARF, Inc.
- Carpenter, P. P. (2003). *The Power of Plantain*. ARF, Inc.
- Carpenter, P.P. & Reno, D. (2002) *Personal Assessment of the College Environment (PACE)*. A report for Baltimore City Community College, Baltimore, MD. Raleigh, NC: North Carolina State University, National Initiative for Leadership and Institutional Effectiveness.
- Ghosal, L.N. & Carpenter, P.P. (2002). *Student Assessment of the College Environment (SACE)*. A report for Milwaukee Area College, Milwaukee, WI. Raleigh, NC: North Carolina State University, National Initiative for Leadership and Institutional Effectiveness.
- Ghosal, L.N. & Carpenter, P.P. (2002) *Personal Assessment of the College Environment (PACE)*. A report for Raritan Valley Community College, New Branch, NJ. Raleigh, NC: North Carolina State University, National Initiative for Leadership and Institutional Effectiveness.
- Ghosal, L.N. & Carpenter, P.P. (2002). *Personal Assessment of the College Environment (PACE)*. A report for Cottey College, Nevada, MO. Raleigh, NC: North Carolina State University, National Initiative for Leadership and Institutional Effectiveness.
- Tanner, T.B. & Metcalf, M.P. (1999-2000). Clinical Tools Inc. Submission of *Exploring Alternative Therapies for ADD and ADHD* article.
- Carpenter, P. (1999). *The Wisdom of our Elders: Folk Medicine*. Herbal Thyme Herb Guild.
- Carpenter, P. (1999). *Dogs and Herbs: Andrew's Story*. Hummingbird Farm News Deepening Our Connection to All Life December 1999 Volume 3, Issue 3.
- Carpenter, P. (2000). *Animals and Herbs: Addressing Fleas and Ticks through Diet and Herbs*. Whole Journal, Summer 2000.
- Carpenter, P. (1997-1999) Freedom Farm Newsletter (quarterly).
- Carpenter, P. (1997-2001) Contributions of a variety of articles to local and regional herb groups and newsletters.
- 1994-95 Scholarship recipient of the Clare Allen Award for essay on animal rights. North Carolina State University, Department of Philosophy.

### **Organizations**

- American Educational Research Association (AERA)
- Epsilon Pi Tau-North Carolina State University

- International Technology Education Association (ITEA)
- Southeastern Technology Education Conference (STEC)
- North Carolina Council for Technology Teacher Education (NCCTTE)

### **Board and Organizational Affiliations**

-Kenan Institute for Engineering, Technology, and Science-Mentor for Kenan Candidate science teacher in developing plug-in hybrid electric vehicle curriculum.

-Pet Chaplain Board Member serving as an educational consultant in developing course curriculum for pet chaplains. <http://www.petchaplain.com/>.

### **Scholarship**

Awarded the Clare Allen scholarship based on writing essay under the direction of Dr. Tom Regan at North Carolina State University-Department of Philosophy.

### **Other work experience**

**Instructor**-botanical medicine-1995-2001.

**Entrepreneur**-small business owner of herbal medicine company 1995-2001.

**Sustainable and organic farmer**-1995-2001-Educator, marketer, farmer in organic vegetable crops, flowers, and medicinal herbs.

**Account Executive**- Broadcasting sales and marketing-Radio in Raleigh, North Carolina, Miami, and Washington D.C. ADI. 1982-1993. Trained in broadcasting sales and top three on sales staff in all markets. Cold called, developed new and existing accounts, researched and discovered coop money for clients, and planned promotions that would create traffic and revenue for clients.