

S.T.E.P. End of Year Report: 2008-09

The STEP program was designed for the 11th and 12th grade students and instructors of the program to gain valuable knowledge and skills related to engineering and manufacturing technology currently being used at most facilities that have a production process. This program is a collaborative effort between (MSU) CAVS Extension/Bagley College of Engineering, Nissan, Mississippi Department of Education (MDE) Office of Vocational Education, and Madison County, Leake County, Canton Public, and Jackson Public school districts. The program was designed to introduce the students and instructors to the latest technology being used at a major manufacturing facility. The students have completed a minimum 54 – 75 contact hours throughout the school year and a final project/competition that demonstrated their comprehension and application of this technology. They competed for scholarships and a program trophy. Each student was asked to track their activities with a journal that describes the skills being taught as well as their writing and comprehension skills. The relationships that have been developed with the school districts, MDE, MSU, and Nissan has given these student recognition as potential leaders in the next technology savvy generation. This request for funding will include the following components:

- Instructor Training (40 hrs)
- Student Training (54 – 75 hrs)
- Pre-Admission College Registration
- Manufacturing Tour
- Robotics & Computer Simulation Competition (end of Year)
- Awards and graduation ceremony

This has been the most successful year for the Student Technology Exchange Program. The picture below represents the new banners purchased this year to identify the logo that will be used to move the program forward. Special thanks to the graphic artist at MSU Bagley and MDE Research Curriculum Unit for their creative ability.

S.T.E.P. is the Student Technology Exchange Program sponsored by MS Department of Education, Nissan, CAVS Extension and the Bagley College of Engineering at Mississippi State University. Partnering with the Leake, Jackson Public, Madison, and Canton Mississippi school districts, the program helps prepare students for the world of work with enhanced skills by exposing them to the use of state-of-the art manufacturing equipment at the Nissan plant.

**“Stay on the Bus”
to Professional
Occupations with
S.T.E.P.**

NISSAN

**CAVS
EXTENSION**

**JAMES WORTH
BAGLEY
COLLEGE OF ENGINEERING
MISSISSIPPI STATE UNIVERSITY**

Student Technology Exchange Program Mission:

This project is centered on identifying potential engineering students who have the capacity and interest in professional careers related to these disciplines: Mechanical, Industrial, Civil, and Manufacturing. Through the association with the Vocational Centers involved with this program the background components will be reinforced with the Technology Applications program that feed the 11th and 12th grade students into the STEP program. These students will be actively engaged in concepts and methodologies related to the Science, Technology, Engineering and Mathematics (STEM) principles. The STEP program will allow these future engineers or other professional career leaders to begin the process of the Co-Op type learning model for their

future aspirations. This hands on training gives these students a head start on the type of equipment, modeling designs, teamwork, competition and other character and skill developing techniques that will be used throughout their professional careers.

Demographics Totals from 2005-09:

- Jackson Career Development Center: Total = 57; Male = 35 (61%); Female = 23 (39%)
- Leake County Vocational Technical Center: Total = 17; Male =12 (70%); Female = 5 (30%)
- Madison County Career and Technical Center: Total = 20; Male = 14 (70%); Female = 6 (30%)
- Canton Career Center: Total = 32; Male = 17 (53%); Female = 15 (47%)
- Totals: 127; Male = 77 (60%); Female = 47 (40%)
- Blacks Total: 76%
- Female Total: 40%

The minority participation since the program began:

- 2005-06: 73%
- 2006-07: 58%
- 2007-08: 78%
- 2008-09: 87%

<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>
Males: 16	Males: 14	Males: 22	Males: 26
Females: 7	Females: 15	Females: 15	Females: 12
Blacks: 17	Blacks: 17	Blacks: 29	Blacks: 33
Whites: 6	Whites: 7	Whites: 5	Whites: 2
Others: 0	Others: 5	Others: 3	Others: 3
Total Students: 23	Total Students: 29	Total Students: 37	Total Students: 38

S.T.E.P. Documents 2008-09:

The official S.T.E.P. logo was used on all of the program documentation for the awards ceremony to include the program and certificates listed below:

S.T.E.P. Supporters

- Leake School District
- Entergy
- Tower Automotive
- System Electro Coating
- Madison Schools
- Bank Plus
- Citigroup Foundation
- Nissan Store
- Pointe Magazine
- Siemens
- Crown Trophy
- Jackson Public Schools
- Canton Public Schools
- Nissan
- MSU Bagley College of Engineering
- JSU Engineering and Technology



NISSAN

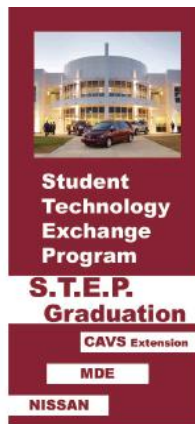
MISSISSIPPI STATE UNIVERSITY

CAVS EXTENSION

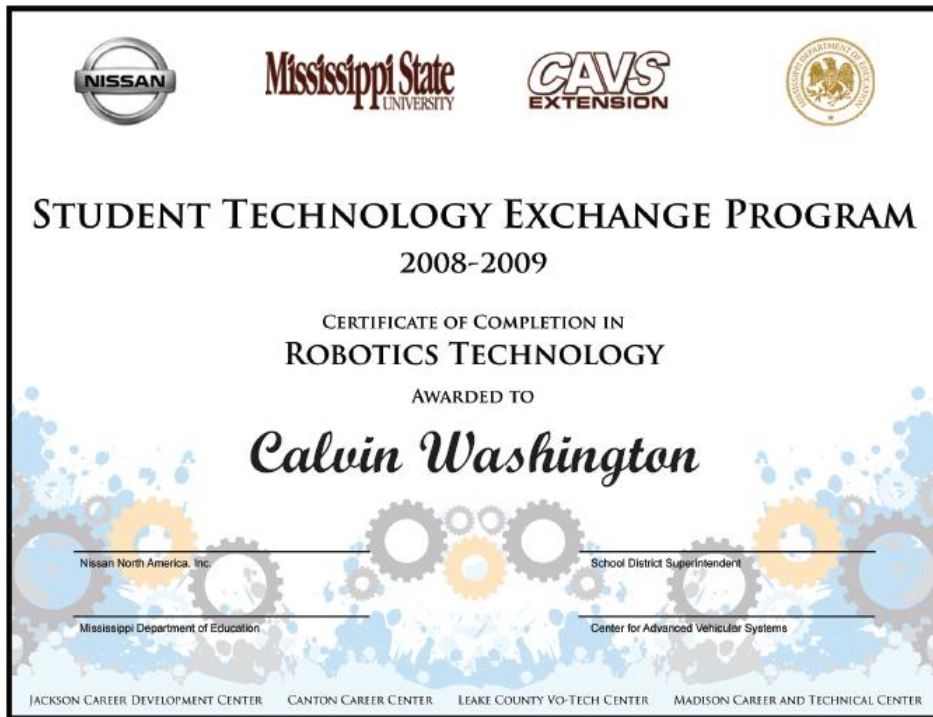
The Mississippi Department of Education, Office of Vocational Education and Workforce Development does not discriminate on the basis of race, color, religion, national origin, sex, age, or disability in the provision of educational programs and services or employment opportunities and benefits.

The following office has been designated to handle inquiries and complaints regarding the nondiscrimination policies of the Mississippi Department of Education.

Director, Office of Human Resources
Mississippi Department of Education
309 North West Street, Suite 309
Jackson, MS 39201
(601) 359-3511



Certificates 2008-09:



S.T.E.P. Supporters:

- Nissan
- Entergy
- Citigroup
- Canton Public School District
- Madison County School District
- Jackson Public School District
- Leake County School District
- BankPlus
- Siemens
- AABE
- M-TEK
- Crown Trophy
- Tower Automotive
- Ms Dept of Education
- Research Curriculum Unit
- MSU Bagley College of Engineering
- JSU College of Engineering
- Nissan Store

Grant Recipients:

- Jackson Career Development Center
- Leake County Vo-Tech Center
- Canton Career Center
- Madison County Business & Commerce Center

The Scholarship recipients are:

Outstanding Program Students 2009:

- Brittany Greer – Jackson - \$1,000
- Bernard Aldridge – Jackson - \$1,000

Outstanding Student from Madison:

- Eric Spann - \$500

Outstanding Student from Leake:

- Keith Phillips - \$500

Outstanding Student from Canton:

- Joshua Johnson - \$500

STEP Plans for 2009-10:

- Instructor 5 Day Training – Summer 2009 – The instructors will receive 3 days of robotics training and 2 days of PLC training
- Manufacturing Tour Day – November 5, 2009 – This annual tour will include Nissan and supplier to be determined
- Pre-College Registration Day – September 29 & 30, 2009 – All students will meet at the CAVS Extension to begin the applications for college/university and any scholarships requirements that they qualify
- Computer/Robotics Competition Trials – April 12-23, 2010 – This competition exercise will help to determine the scholarships given
- Award Ceremony – May 1, 2010 – This ceremony will recognize the student achievements and program success for all participants/ STEP program family Cook Out – May 1, 2010: This event will invite program participants and family, Nissan and program supporters
- Give Counselors S.T.E.P. Video or Cable TV 17 or 18 – Aug 2009 - make copies of the STEP video for counselors to use when identifying potential students for the program