

## Gadsden State Welcomes Dr. Raymond W. Staats, President

Dr. Staats joined Gadsden State Community College as its seventh president on June 1, 2011.



**Dr. Ray Staats**

Dr. Staats began his professional career as a commissioned officer in the United States Air Force. His initial duties were as a Space & Missile Operations officer, with positions in satellite command and control, space launch, and missile test and evaluation. Later, his military career transitioned to assignments in higher education. He served as a faculty member at the Air Force Institute of Technology, where he

taught graduate courses in Operations Research and authored several professional journal articles. He joined the Community College of the Air Force in 2006, first as Vice Commandant (Executive Vice President) before becoming Commandant (President) the following year. He retired from the Air Force in 2009 as a Lieutenant Colonel with more than 20 years of active duty service, and accepted a position as the Vice President for Instruction at John Wood Community College in Quincy, Illinois. He was selected as president of Gadsden State Community College in 2011 following a national search.

Dr. Staats holds a Bachelor's degree in Mathematics from Syracuse University, a Master's degree in Space Operations from the Air Force Institute of Technology, and a Doctor of Philosophy degree in Industrial and Systems Engineering from the Virginia Polytechnic Institute and State University. He is a military graduate of Squadron Officer School, Air Command and Staff College, and Air War College. He is also a graduate of Harvard University's Institute for Management and Leadership in Education.

*“My family and I are thrilled to have returned to Alabama. I’m especially excited to join the Gadsden State Community College Team — looking forward to being a part of the College’s tremendous future!”*

“Automotive Service Technology is a little different from what people realize. The old adage of the backyard mechanic is gone.”



State of the Art –

Mitchell On-Demand Shop Manual; Mitchell is closely aligned with Auto Mfg and Dealerships and provides current technical updates with no lag time between model years.

## Spotlight: Automotive Service Technology

The Automotive Service Technology shop at Gadsden State is a very busy place. Students are already in the shop prepping for a 9:00 a.m. class by 7:30 a.m. Harold Waddell and faculty are present advising and consulting, seeking that teachable moment. During the course of a typical semester, these students and faculty will process 100-125 vehicle work orders involving real life situations and all aspects of automotive service: drivability issues, suspension and steering, brakes, HVAC, electrical systems and more. During vehicle intake, students complete a CDX Automotive Task sheet that provides opportunities to practice business procedures necessary for the intake of vehicles, vehicle data entry, processing of paperwork and record keeping. Students then proceed to research the complaint and to do this they go directly into the virtual world of computers and databases. To effectively address the complaint reported by the client, the student determines the appropriate online service manual and begins to list the possible causes, inspect the engine and initiate diagnostic tests to check performance. Faculty rate the student's competency on the initial diagnostics on a 0-4 scale and the proficiency worksheet becomes part of the student's electronic database record. This

record provides faculty with a means to track student progress and individualize instruction. Strengths can be quickly reinforced and weaknesses addressed to improve student learning.



Harold Waddell

**Peer Mentoring:** Gradually, students become more independent and move into a mentor-leadership role. During the early stages of technical training, inexperienced students are paired with more advanced students. The advanced students benefit from the actual work experience but accrue additional benefit from the peer learning situation. Waddell observes that incorporating this peer learning technique improves learning for both mentors and the student groups they are leading. Furthermore development of leadership qualities in students contributes to the student's future professional success. Waddell reports that the mentor, through the process of explaining techniques to less advanced students, gains a deeper

understanding of technical procedures.

**Program is Rich in Technology:** All CDX teaching materials are online. These include video simulations of problem solving, summaries of techniques and automotive performance theory, and necessary technical specifications for foreign and domestic vehicles from 1962 to the present. Progress checks are available for students in an interactive format. All are available both onsite and off-site. There are no more giant text books or shelves of Vehicle Technical Manuals. Students purchase eText and receive an access code to a webpage and database. Students also have access to the National Automotive Trade and Education Foundation (NATEF) website. This provides an additional resource for learning and reference. Simulations are interactive of tasks encountered in auto service. Students can, to an extent, work at their own pace and progress within a concept area at their own speed. Faculty monitor student progress through an online interactive database. Another advantage of the electronic format is that the records retained assist students with resume building.

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# Automotive Service Technology, Continued

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Students who complete the program can provide potential employers with a comprehensive list of tasks and techniques mastered.

**MODIS (Modular Diagnostic Information System):** The MODIS system has proved to have been a technological investment in student’s futures. The \$12,000 system connects vehicle to computer for diagnostic evaluation. This handheld device records data from a vehicle in real-time and provides a platform for analysis of engine performance. In addition, MODIS is a database of technical data specific to the vehicle to which it is connected – no more searching through printed technical manuals for these modern technicians. Aside from diagnostic and research purposes, the data can be used for both small group demonstration and

displayed on a larger monitor for classroom use. MODIS technical resources are updated twice a year so that information is current.



**Billy Freeman, a fourth semester Automotive Service Technology student analyzes engine performance data using a handheld computerized diagnostic instrument connected to the vehicles on-board electronic system.**

**Alignment Machine:** The task of vehicle alignment is a prominent one for Auto

Service Technicians. The process of alignment involves mounting sensors to each wheel and then connecting the sensors to a diagnostic computer. Data is collected and analyzed electronically. Students determine adjustments to be made with the aid of online illustrations. The student’s performance is evaluated to specific tolerances that meet or usually exceed industry standards.

**Other Skills:** The Automotive Service Technology program seeks to provide students with the broadest array of skills and experience possible. To this end, students are provided learning opportunities in basic machining and welding. On the other end of the spectrum, Harold Waddell and faculty emphasize general education proficiencies.

Students are expected to develop reading and technical writing skills and to be able to communicate effectively. Waddell reports

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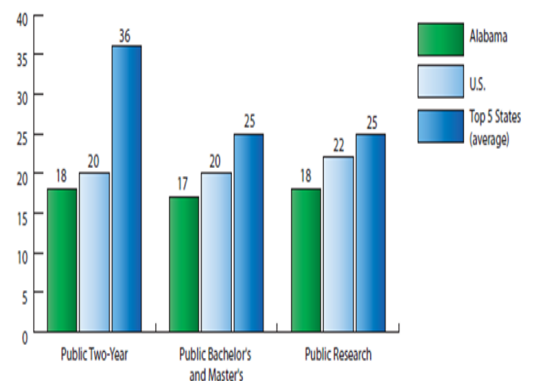
**Average Lifetime Earnings by Education Level**

Education Level	Estimated Average Lifetime Earnings
Bachelor's Degree	\$3,380,060
Associate Degree	\$2,254,765
Some College	\$2,239,548
High School Diploma	\$1,767,0250
High School Dropout	\$1,198,447

Source: Anthony P. Carnevale, Nicole Smith, and Jeff Strohl, "Help Wanted: Projections of Jobs and Education Requirements through 2018" (Washington, DC: Georgetown University, 2010).

**Number of Certificates and Degrees Completed per 100 Students Enrolled (2008)**

This indicator provides a basic measure of degree productivity—output relative to input—for the state's postsecondary system. This information is important to track over time in conjunction with enrollment to ensure that productivity is not increasing as a direct result of limiting access to college.



Source: U.S. Department of Education; National Center for Higher Education Management Systems

Since 1975, average annual earnings of high school dropouts and high school graduates fell in real terms (by 15 percent and 1 percent respectively), while those of college graduates rose by 19 percent. In other words, the economic benefits – both for individuals and the society – of completing higher education are growing.

Workers with higher levels of education also benefit from greater job security, especially during economic downturns. In 2009, the Bureau of Labor Statistics reported that 8.0 percent of adult workers with some postsecondary education or an associate degree were unemployed, while 9.7 percent of adults with no postsecondary education were unemployed. Individuals without a high school diploma fared even worse, with an unemployment rate of 14.6 percent.

### Automotive Service Technology, Continued

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that often students resist completing these general education requirements but faculty explain that reading, writing and communication competency has direct effect on compensation. The ability to explain problems, research possible solutions, and explain the problem and solution to a client has a positive correlation with remuneration. On completion of the program at Gadsden State, students leave with experience, a resume, and confidence in themselves and their technical skills.

## Assessment of the QEP

**Faculty** in all disciplines will work towards implementing technology-based activities and/or projects that will prompt students to become engaged learners. Within disciplines, divisions, and programs, instructors will develop rubrics or other means to assess students' ability to (1) **use** specific technology to gain computer competency; (2) **gather and synthesize** information from a variety of electronic sources; and (3) **learn** to communicate their findings with others.

Additionally, standardized assessment tools including CSP (Computer Skills Placement) by College Board and ACCUPLACER, the Standardized Assessment of Information (SAIS), Literacy Skills (SAILS), and the

Community College Survey of Student Engagement (CCSSE) will be administered throughout the five-year period.

A combination of these quantitative and qualitative assessment measures will allow the College to determine students' abilities as they actively engage in acquiring the basic skills (i.e. computer competency, information literacy, and communication aptitude) necessary for success at four-year institutions and in the workplace.

- ◆ The Bureau of Labor and Statistics estimates that the fastest growing postsecondary credential by 2018 will be the Associate's degree.
- ◆ Awards of AS, AAS, and AA degrees are expected to increase by 19% between 2008 and 2018.

## TEC Initiative SLOs and Commitments to Use Technology

How can you make sure these learning outcomes are attained? Incorporate assignments and learning activities that support these outcomes in your classes. **Document, Document, Document!**

Every one of these learning outcomes can't be incorporated into every class, but an emphasis on use of technology will work at some level almost everywhere.

- Students will be able to **connect** to other students and their instructors via email
- Students will **learn to submit** assignments electronically
- Students will **develop/demonstrate** the **ability to initiate searches** when in need of specific information for special projects/assignments in all courses
- Students will be able to **recognize reliable sources and determine the usefulness** of information gathered using technology resources
- Students will **develop skills that allow them to incorporate a variety of formats to share** information with each other and instructors.

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