Cooperative Developmental Energy Program
Collaborating to Create
STEM ENERGY SPECIALISTS
FOR A GLOBAL & DIVERSE WORKFORCE

The Only One of Its Kind In the Nation  •  Fort Valley State University
For more than a quarter of a century, Fort Valley State University and its partnering universities and sponsors have collaborated to recruit, mentor, and educate hundreds of students for a global and diverse workforce. However, maintaining such an elite program requires substantial financial support. Funding for scholarships, internships, and pre-college STEM programs is provided by partnering companies and governmental agencies. Research experience for undergraduate CDEP students is provided by partnering universities.

We solicit other stakeholders to be proactive by joining the CDEP team to financially underwrite pre-college mentoring, scholarships, and internships for academically talented students. By becoming a CDEP sponsor, your company, agency, or university can invest in a successful program that is mutually beneficial for all constituents.

“The Only One of Its Kind In The Nation”
The Challenge

America consumes more energy than any other country in the world. With less than five percent of the world’s population, the U.S. consumes over 20 percent of the world’s energy. With such a high demand for energy, the continued success of the U.S. energy industry and many other scientifically based industries are dependent upon an adequate supply of engineers, mathematicians, and scientists. The nation’s challenge is that the majority of the population is underrepresented in science, technology, engineering, and mathematics (STEM) disciplines. For example, women, African Americans, Hispanics and Native Americans make up approximately 80% of the U.S. population; however, when combined, these groups earn approximately thirty percent of bachelor degrees awarded annually in engineering. With dwindling energy resources worldwide, the nation must utilize all segments of its population to maintain its economic security.

To address this need, on July 1, 1983, Dr. Isaac J. Crumbly founded the Cooperative Developmental Energy Program (CDEP) with start-up funds from the U.S. Department of Energy. CDEP is an innovative energy education program that focuses on increasing the number of underrepresented minorities and women working in the private and governmental sectors of the energy industry. The objective of CDEP is to develop a long-term mutually beneficial relationship between Fort Valley State University and the nation’s energy industry to create a science and technology oriented labor base of underrepresented minorities and women. This objective is accomplished through the following methods:

- Dual degrees in STEM disciplines
- Pre-College STEM Academies
- University Partnerships
- Scholarships
- Internships/Research Experiences for Undergraduates
- Corporate and Government Collaborations/Partnerships
- Career/Job Opportunities

In 1992, CDEP formed partnerships with universities, private sector companies and governmental agencies to offer dual degrees in STEM disciplines that are germane to the energy industry such as mathematics/engineering, chemistry/geology, mathematics/geophysics, and biology, chemistry, or mathematics/health physics.

CDEP, in collaboration with its partners, has produced many graduates who are STEM ENERGY SPECIALISTS and are now employed throughout the world in both energy-related and non-energy related industries. Perhaps one of the greatest benefits to participating companies and governmental agencies is that CDEP and its partnering universities provide a format and an opportunity for these entities to become proactive in helping to produce a future work force.
Corporate & Government Collaborations


“Aera Energy is looking for the best and the brightest to lead our company into the future. We want professionals who are technically talented as well as confident leaders with developed business and personal skills. For these reasons Aera is committed as a company – and I am committed personally – to Fort Valley’s Cooperative Developmental Energy Program. Aera sets aside internship positions for Fort Valley students with the intention of offering full-time employment after graduation. We have been impressed with the caliber of young professionals from Fort Valley and look forward to a long-term partnership with the campus and its capable students.”

Gaurdie E. Banister Jr., President and CEO
Aera Energy LLC

“AGL Resources is very proud to support Fort Valley State University CDEP program. It is well-conceived, well-run, and is very effective in its mission.”

Ralph Cleveland, Executive Vice President and President
Nicor Gas
The U.S. Department of the Interior Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) have been a proud supporter of the Cooperative Developmental Energy Program (CDEP) for over 9 years. BOEM is responsible for managing development of the nation’s offshore resources in an environmentally and economically responsible way, while BSEE is responsible for safety and environmental oversight of offshore oil and gas operations, including permitting and inspections, of offshore oil and gas operations. We are happy to say that we have recruited and hired academically-talented students through this program and will continue to do so.

Chesapeake is proud of the special relationship we have developed with Fort Valley State University and the Cooperative Developmental Energy Program (CDEP). By encouraging young people to explore the opportunities available to them in the disciplines of science and math, Fort Valley is helping create an invaluable pipeline of diverse students who will be equipped with the skills and talents necessary to make an impact in their future careers. At Chesapeake, we strive to support students in their educational pursuits – we are confident the quality students CDEP produces will not only be strong candidates for internships and full-time positions, but will also be the future of the energy industry.

Teresa Rose, Director – Community Relations
Chesapeake Energy
The Cooperative Developmental Energy Program (CDEP) at Fort Valley State University is a one of a kind program with a long tradition of recruiting exceptionally talented students for careers in the energy industry. At Marathon Oil we believe that fostering a pipeline of Diverse Talent for the next generation is of extreme importance and because of the elite group of students this program produces we are proud to be an avid supporter of the educational, social and internship experiences that CDEP provides its students.

Willie M. Stanfield, General Manager
Corporate Development and Diversity – Marathon Oil Corporation

The United States Nuclear Regulatory Commission’s (NRC) Minority Serving Institutions (MSIs) Program was established in 2006 to help MSIs in their efforts to: (1) achieve academic excellence in STEM education and training; (2) build capability, capacity and infrastructure; (3) develop human capital (faculty and students); (4) effectively compete for grants, cooperative agreements, contracts and resources; (5) participate in Federal and public programs and funding opportunities; and (6) produce a diverse skilled STEM workforce. For the past five years, NRC has assisted Fort Valley State University (FVSU) to deliver the nation’s only Cooperative Developmental Energy Program (CDEP). FVSU’s innovative energy education program focuses on increasing the number of minorities and women working in the energy industry sector. NRC has participated in numerous CDEP activities, and provided funding to support student scholarships and intern opportunities. NRC has also appointed a University Champion to generate the interest of FVSU’s students and professors in careers with the agency.

Tuwanda M. Smith, Esq., Manager
NRC’s Minority Serving Institutions Program

ExxonMobil

ExxonMobil has supported Fort Valley State University’s Cooperative Development Energy Program (CDEP) for many years. We believe this is a very valuable program and have hired more geoscience candidates from FVSU’s dual degree program than any other of our major integrated oil company competitors. I have been involved with CDEP since the early days of the program – around 1990 – and have seen the program evolve into a tool that will benefit the industry for generations to come. In fact, the FVSU program has been used as the template for programs developed at several prominent universities. ExxonMobil utilizes technology and innovation in every element of its business and recognizes the essential roles that math and science play in the energy business and in the nation as a whole. As a technology based company, we are a leader in the national effort to improve math and science education. ExxonMobil is committed to advancing U.S. math and science education and does so by supporting a variety of educational initiatives targeting students and teachers. ExxonMobil has a long history of supporting programs that seek to improve education and career opportunities for minorities and women, particularly within the STEM fields.

Reginald L. Beasley, Resource Manager
Global Geoscience Recruiting / Geotechnical / Administrative
ExxonMobil Exploration Company
I am proud to say that the US Geological Survey has been a partner with the Fort Valley State University Cooperative Developmental Energy Program since 1993. For nearly two decades our partnership has helped provide scholarships and job opportunities to deserving minority and women students as they pursue a degree in science or engineering. Over the last several years, the USGS has had the pleasure of hosting the 9th grade academy at the USGS National Headquarters in northern Virginia. The students are given a glimpse of the work that scientists undertake to understand the natural world and are also introduced to the possibilities of a career in public service. By continuing to encourage these students to excel in math and science at this age, we can increase the number of female and minority students who will pursue science in college. Each year Federal agencies hire students to conduct their various missions and to allow students to gain on the job experience. I have had the pleasure of hiring students from the CDEP program as summer interns. We are continually impressed with the talent of the students that participate in CDEP.

Steve Hammond, Acting Deputy Associate Director for Natural Hazards
US Geological Survey

Shell recruits over 75% of our employees from math and science disciplines - from geologist in our Upstream business to engineers, operators and maintenance craft technicians in the Downstream. This makes it critical for Shell to work with partners whose mission is to develop our future workforce by stimulating interest in science, technology, engineering and math throughout grade school and college. While that interest is important for Shell's future workforce, it is also important for the future workforce of the entire energy industry and critical for the growth of the economy in the United States. Shell recognizes that the Fort Valley State University’s Cooperative Developmental Energy Program (CDEP) and their partnership with corporations and leading institutions help build the diverse technical talent pipeline for the future. This dual degree program prepares the CDEP students with the technical skills and knowledge to be visionaries and problem solvers. Shell and the energy industry are looking for the best and the brightest talent to help develop solutions and innovations to meet the global energy challenge of tomorrow. As a sponsor and supporter since 1993, Shell looks forward to continuing this partnership with Fort Valley State University.

John Hollowell, Executive Vice President
Deep Water, Shell

“Southern Company is proud to partner with the Cooperative Developmental Energy Program at Fort Valley State University to link minorities to careers in the energy industry. As a founding partner, Southern Company has provided annual internship opportunities and has hired over a dozen graduates for jobs throughout our company.

As an energy industry leader, we attribute a great deal of our success to our highly-skilled and diverse workforce. CDEP graduates have contributed in a meaningful way to Southern Company, and we find value in our partnership.”

Christopher Womack, President of External Affairs
Southern Company

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Christopher Womack, President of External Affairs
Southern Company
The Fort Valley State University (FVSU) welcomes partners as we move forward into the twenty-first century with our unique Cooperative Developmental Energy Program (CDEP)! As FVSU’s president, I can assure you that we extend a warm invitation to corporations, governmental agencies, and other institutions of higher learning to join with us for mutual good. For more than two decades, CDEP and its partnering universities have prepared academically talented young men and women for careers in the energy industry and other STEM-dependent enterprises and initiatives. CDEP well has deserved its designation as a national model program. Dr. Isaac J. Crumbly, CDEP’s founder and director, more than merits applause and congratulations, not to mention recognitions such as President Barack Obama’s 2009 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring.

It is my pleasure to underscore to all of our partnering companies, governmental agencies, and universities that we at FVSU gratefully appreciate your continuous participation with CDEP. By the same token, all other companies, governmental agencies, and universities searching for a premier workforce program that enhances EXCELLENCE and DIVERSITY will be welcomed as a member of the CDEP consortium.

Larry E. Rivers, President  
Fort Valley State University

For over 10 years Georgia Institute of Technology has partnered with Fort Valley State University and the Cooperative Developmental Energy Program (CDEP) to increase the number of diverse engineers. In addition to the academic knowledge and engineering experience, CDEP provides students with the necessary tools to be successful in engineering. Our collaboration has produced students who have gone on to pursue engineering careers as well as graduate degrees. The College of Engineering at Georgia Institute of Technology is privileged to partner with Fort Valley State University and CDEP and looks forward to continuing our rich partnership.

Gary S. May, Dean, College of Engineering, Professor  
School of Electrical & Computer Engineering, Georgia Institute of Technology
In 2004-2005, The Department of Geosciences at Penn State launched the AfricaArray program, opening up opportunities for CDEP students to participate in a premier geosciences field course in South Africa and to complete a B.S. degree in the geosciences through a 3:2 program. The field course provides a unique international and multicultural experience in the geosciences for CDEP students, while the 3:2 program helps create career pathways into graduate schools and industry. As AfricaArray grows we will continue to build CDEP students into leaders throughout the industry and look towards FVSU as a primary partner.

Andrew Nyblade, Director of Africa Array
Professor of Geosciences, Penn State University

This agreement will not only result in new generations of exceptionally well-trained geoscientists, but will also advance our goal of increasing diversity in the student body at the University of Arkansas. The Cooperative Developmental Energy Program at Fort Valley is the only one of its kind in the nation, preparing students for energy-industry careers in science and geology.

The J. William Fulbright College at the University of Arkansas is very proud to be a participating institution in this program to prepare 21st-century geoscientists who will work at the forefront of our national energy industry while ensuring the integrity of our global environment.

Robin Roberts, Dean
The J. William Fulbright College, University of Arkansas

"The quality of Fort Valley State University CDEP students who have attended the UNLV College of Engineering and graduated has been excellent, especially, with respect to their math preparation, study skills and commitment to academic success. The educational, social and internship experiences that CDEP students receive as a result of their matriculation through both educational institutions ultimately prepares them for success in the engineering profession. We are gratified that over fifty CDEP students have graduated from UNLV and gone on to become effective and productive professional in the nation’s technological industries. The UNLV College of Engineering faculty and staff feel very fortunate to partnership with Fort Valley State University in fulfilling the CDEP mission and look forward to many more CDEP students entering our engineering programs."

Rama Venkat, Dean
Howard R. Hughes College of Engineering, University of Nevada, Las Vegas

In 2004, the Jackson School formed a partnership with FVSU that includes hosting the 11th grade summer Mathematics, Science, and Engineering Academy (M-SEA) in Austin and providing avenues for FVSU students to transfer to UT-Austin to complete degrees in the Geosciences and Petroleum Engineering. During the summer academy, M-SEA students have an opportunity to experience life on a large public university campus, classroom instruction delivered by a professor, and field trips to local geologic sites. The transfer partnership has proven very successful as FVSU delivers high-quality students who rapidly move through the degree programs, some on to graduate school, and all into the workforce. Our collaboration has resulted in a more diverse workforce serving the needs of the energy industry.

Sharon Mosher, Dean
Jackson School of Geosciences, University of Texas, Austin
The CDEP program heavily influenced my career. I learned to manage a heavy workload as well as build relationships with people. With this program, I had the opportunity to intern with Shell for three summers and ultimately obtain a job. The CDEP program allowed me to develop better communication skills through giving presentations and speaking during events which is very beneficial for the job that I am in now since I have to talk to vendors and colleagues. Having the support from the CDEP staff and knowing that they were always available when we needed advice or someone to talk to helped make my college experience great. I know that my life is better having gone through this program.

Jessica Curry, Facilities Engineer
Shell, New Orleans, LA

CDEP has been a blessing in my life. A chance encounter outside of my high school cafeteria with a representative led me to enroll into CDEP at Fort Valley State University. I wanted to major in Chemistry when I went to college, and this program allowed me to do that and gain a Geology degree. Through hard work and dedication, I completed the CDEP program in 2000. I received a B.S. degree in Chemistry from Fort Valley State University and a B.S. degree in Geology from the University of Oklahoma.

During the program, I gained valuable work experience through the geology internships that I obtained as a member of CDEP. I had three internships with Conoco and one with ExxonMobil. After my first internship, I decided to pursue Geology as my future career instead of Chemistry. This turned out to be the right decision because after my fourth internship, ExxonMobil offered me a full-time position. I have spent the last eight years employed as a geologist for ExxonMobil, and it’s all due to CDEP.

From time to time over my career at ExxonMobil, I have helped out with the M-SEA program. I have participated in panel discussions with M-SEA students; participated in the Houston leg of the M-SEA program for ExxonMobil; and coordinated trips to the Museum of Natural Science for the students. My most favorite experience was introducing the geology of the Grand Canyon to a group of students as we hiked down the canyon.

Robert Little, Geologist
ExxonMobil, Houston, TX

As a graduate from UNLV, I am constantly asked the question, “How did you end up in Las Vegas, NV and you are from Albany, Georgia?” I always respond with the following statement, “I was provided a scholarship through a dual-degree program known as CDEP at Fort Valley State University.” The conversation never stops there because I provide every person with the wonderful details and internship opportunities I was provided with CDEP. Now that I am able to give back, I wait each summer for the M-SEA program to visit UNLV to assist in Mathematics. Along with receiving advanced mathematics skills, it also allows high school students to see the products CDEP has produced throughout its years of existence.

Through the challenging years of CDEP at Fort Valley State University and the University of Nevada Las Vegas, I developed a strong work ethic. After receiving my degree in Civil Engineering from the University of Nevada, Las Vegas, I was employed with Perini Building Company as a Structural Project Engineer for the Aria Tower at City Center. Currently, I am employed with the United States Army Corps of Engineers as a Civil Engineer in the Afghanistan Engineering North District on a 13 month deployment.

Thank you CDEP for contributing your time and efforts to help me reach my career goals in life.

Derrick Pace, Civil Engineer
United States Army Corps of Engineers (Afghanistan)
CDEP’s accelerated scholarship program prepared me for a demanding career as an engineer. While in CDEP, I received two bachelor degrees (Mathematics and Electrical Engineering) in five years and had great experiences in four internships during the summers. My degrees, internships, communication skills, and the mentoring that I received through CDEP made me highly marketable in the engineering industry. After graduating from the program, I was able to easily find full-time employment, raise a family, and earn a master’s degree in electrical engineering. I would highly recommend the CDEP program to anyone who has the desire, passion, and determination to excel in the energy industry. I continue to support the program by attending Energy Career Day and speaking to the students, parents, faculty, companies, and supporters. I have a nephew who is currently a CDEP student, and I look forward to my children having the opportunity to become CDEP graduates. This program has truly blessed my life, and it can do the same for others. Currently, I am employed at Robins Air Force Base as a Systems Engineer supporting defensive avionics systems.

**Jermaine Smith, Electronics Engineer**  
Robins Air Force Base, Warner Robins, GA

I joined the CDEP program at the collegiate level as an incoming freshman majoring in Mathematics at Fort Valley State University. From the onset, we were challenged to perform and to be the very best we could be. I learned many important life lessons through the program including how to handle large workloads, time management, and multi-tasking. The CDEP program was very demanding, but it also provided opportunities that few other students in the university had by putting me face to face with recruiters from some of the best companies in the world. These opportunities resulted in three internships in three years. After my three years at FVSU, through CDEP, I was able to attend one of the best geoscience programs in the world at Penn State University. While at Penn State, I had the opportunity to learn from and work with some of the top geoscientists in their fields and to do two more internships. After completing my B.S. and M.S. in Geosciences at PSU, I received a full time employment offer from ExxonMobil. CDEP not only provided a way for me to go to school, it afforded me the opportunity to see the country, to meet great people and make great friends, and to be where I am today.

**Enrique Perez, Geologist**  
ExxonMobil, Houston, TX

The CDEP program has been a critical element to the success I have experienced thus far. It is responsible for cultivating my love and appreciation for math and science and introducing me to the world of engineering. Given access to aggressive academic curriculums, talented and invested professors and mentors, and internship opportunities early on in my career, placed me on the path to realizing my potential. I am eternally grateful to the those behind the CDEP program who saw my potential.

CDEP students and graduates are dynamic, thoughtful, and are, unequivocally, the best and brightest. They are a testament to what makes the program so special. I am so proud to be a part of a program that produces the caliber of students and engineers that the CDEP program produces.

**Ramona Sanders, Structural Engineer**  
U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement, New Orleans, LA
What Is M-SEA?

CDEP implemented the M-SEA component of the program in 1993. M-SEA is an early intervention program that targets minority and female students who have just been promoted to the ninth grade. M-SEA students are introduced to the fields of energy, mathematics, earth science, biology, engineering, and computer science. Students who remain in the CDEP pipeline until their senior year in high school increase their chances of receiving full scholarships for college in one of CDEP’s 3+2 dual degree programs: mathematics/engineering, mathematics/geology, mathematics/geophysics, chemistry/geology, biology/health physics, chemistry/health physics, and mathematics/health physics.

To be eligible for M-SEA, students must meet the following criteria: (1) be recommended by a school counselor, principal, math or science teacher; (2) have an overall grade point average of 3.0 or above on a 4.0 scale; (3) have a solid “B” or above average in math and science subjects; and (4) have satisfactory grades in conduct.

In 1993, I began CDEP’s first class of the Mathematics, Science, and Engineering Academy (M-SEA). The summer academy introduced me to the energy industry through various lectures, field trips consisting of onsite visits to energy companies, and geological field experiences. Academically, I gained knowledge of math, chemistry, and engineering subjects at levels above what was offered at my high school. M-SEA prepared me academically for college. In addition, I was able to develop professional skills that are still applicable to my current role.

After high school graduation, I began the Cooperative Developmental Energy Program (CDEP) at Fort Valley State University, and I continued on to the University of Oklahoma. I received Bachelor degrees in Chemistry and Geology through the scholarship program. Adhering to CDEP’s requirements, I achieved a grade point average above 3.0, which placed me ahead of many of my classmates. In addition to the academics, I gained significant job experiences with five internships with petroleum companies during my undergraduate years. Currently, I am employed as a Geologist at BP, where I also serve as the FVSU/CDEP liaison. As the liaison, I help secure scholarship funds, co-host the summer academies for the 12th grade M-SEA, and build BP student relationships for future employment.
Mathematics, Science, & Engineering Academy (M-SEA)

CDEP’s PIPELINE FROM 9th Grade to Employment

Employment & / or Graduate School

2 years at Partnering University
SCHOLARSHIPS and INTERNSHIPS*

3 years at Fort Valley State University
SCHOLARSHIPS and INTERNSHIPS*

12th Grade: Fort Valley State University & Sponsors

11th Grade: University of Texas-Austin, University of Arkansas & Sponsors

10th Grade: University of Nevada, Las Vegas & Sponsors

9th Grade: Fort Valley State University, Penn State, Georgia Tech, & Sponsors

* Scholarships, internships and research opportunities are provided by the CDEP sponsors and partnering universities.
STEM ENERGY SPECIALISTS are now employed throughout the world in both energy-related and non-energy related industries.

Fort Valley State University Has The Distinction Of Having The Nation’s ONLY Cooperative Developmental Energy Program
Mission Statement

The mission of Fort Valley State University is to advance the cause of education with emphasis upon fulfilling commitments that our community members have undertaken collectively. As an institution of the University System of Georgia, Fort Valley State University naturally embraces the principles articulated by the Core Mission Statement for State Universities as approved by the Board of Regents of the University System of Georgia. The university’s primary commitments include, among others, enhancement of teacher training programs grounded upon a liberal arts foundation, as reflective of over 115 years of experience and tradition. Additionally, the university recognizes with great pride and desires to further its responsibilities as Georgia’s only 1890 Land Grant institution by offering programming excellence in agriculture, agribusiness, family and consumer sciences, extension, technology and military science and leadership, as well as to further its traditions of excellence in programs in the liberal arts and humanities, social sciences, and natural and physical sciences.

Accreditation Statement

Fort Valley State University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate and master’s degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Fort Valley State University.

Fort Valley State University is an affirmative action, equal opportunity institution and does not discriminate against applicants, students or employees on the basis of race, gender, ethnicity, national origin, sexual orientation, religion, age, disability or marital or veteran status.
For additional information about the Cooperative Developmental Energy Program (CDEP) you may write or call:

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Cooperative Developmental Energy Program
1005 State University Drive
Fort Valley, Georgia 31030
Phone: (478) 825-6243   Fax: (478) 825-6618
Website: www.fvsu.edu/academics/cdep

Fort Valley State University is geographically located in the center of the State of Georgia less than two hours from Atlanta.