Live, Learn, Pursue Passion
NASA mathematician preps Class of 2006 to find its mission
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on the cover
Graduating students Tarel Robinson and Ken Roof eagerly anticipate the start of commencement's procession on May 13.
Celebrating achievement

During her career as a NASA mathematician, Katherine Johnson worked with teams collaborating on historic missions – launching the first man into space, orbiting the first man around the earth, landing the first man on the moon.

They were all groundbreaking and critical missions, but not nearly as important as the mission Johnson set for her own life—one filled with passion and constant education.

“You assignment – find your mission,” Johnson said to the 230 graduating students of the Class of 2006 at the annual Capitol College commencement May 13. “Your first goal was to get your degree. Now you must find a mission to pursue with passion to keep you learning in life.”

The annual ceremony gave the soon-to-be alumni a chance to reflect on their successes, their growth and their future. Amid all the pomp and circumstance, the gathered graduates enthusiastically clapped and cheered each time a speaker said the magic words – “the Class of 2006.”

The words and work of Johnson, a retired NASA research mathematician, inspired and moved the audience of students, family, friends, faculty and distinguished guests. And when the ceremony ended, one student had the chance to share his

“I feel very good. The last semester was challenging because I had to cram in three classes while working a full-time job. I want to start my own company, and this new degree definitely helps give me more credibility.”

Katherine Johnson emphasized at the start of her remarks that she was not giving an address. Instead, she wanted students to think of it as a “chat.”

Johnson candidly shared tales from life, such as growing up as the youngest and smallest in her family, but peppered her informal chat with serious and moving advice. With her own family sitting before her, Johnson told the Class of 2006 they should begin now to develop their bragging rights.

“One of your greatest joys will be the bragging rights of your grandchildren,” Johnson said. “That should be one of your goals to start early. One of my favorite words is expectations. Expect to keep on learning. Expect to find a career you can find a passion for. And when it comes to your bragging rights, expect more from your children. They can always do a little better and so can you.”

Johnson has given her children and grandchildren plenty of bragging rights.

A native of White Sulphur Springs, W.Va., Johnson graduated from West Virginia State College summa cum laude with a bachelor’s degree in French and mathematics. She began her career as a teacher, but followed her calling in mathematics to work for NASA’s Langley Research Center in 1953. She joined the missions tracking team, using math and physics to calculate complex spacecraft trajectories, orbits and navigation.

Her pioneering work helped launch America’s rise to power in the space race. She calculated the flight paths of the first manned space flight in 1961 by astronaut Alan Shepard, the first manned orbit of Earth in 1962 by John Glenn, and the landing of the first man on the moon by Neil Armstrong in 1969.

In honor of her accomplishments in space science, she received awards from NASA in 1971, 1980 and 1985. She was named Alumnus of the Year in 1962 from her alma mater and Mathematician of the Year from the National Technical Association in 1997. Capitol added one more recognition by presenting her with an honorary doctor of science at commencement.

“I want to thank the college for this great honor,” Johnson said. “It was quite a long time ago that I stood up to receive my first degree. I know how you feel. First of all, I said, ‘I made it!’ I knew I made my parents proud, and I’m sure you did too.”

Along with the honored students, the college recognized the efforts of Dillard Menchen, deputy education officer at NASA Goddard. Menchen received the President’s Medal for his dedication to the college and significant support of the Capitol College/NASA PREP pre-college engineering program for minority students.

For more than a decade Menchen has assisted the college with the six-week summer program that exposes high school juniors and seniors to the rigors of studying engineering in college.

“It has been a joy for me to hear Dillard welcome those summer PREP students and instill in them, through his vast experience and sense of values, a real drive to commit and excel in their educational pursuits,” said President Michael Wood as he presented the medal to Menchen.

Honored students included graduating
“It feels great – I’m ready to be done and move on. I’m thankful to all the people who helped me get to this day and helped me graduate. My plan now is to network and go out there to get the best offer.”
– Noah Williams, BSCET, Bowie, Md.

support of her classmates, Addison, who co-chaired the Senior Gift Committee, told her fellow students that their work is not done. Much like Johnson in her keynote remarks, Addison gave her classmates an assignment.

“From our first day at Capitol, we were besieged with assignments – class assignments, homework assignments, lab assignments, and the dreaded Senior Design Project assignments,” Addison said. “Fellow graduates, we are not done yet. Your new assignment as a Capitol College alumnus is to continue to give back to this institution that gave so selflessly of itself. Let us continue to help develop this infrastructure for those that we leave behind.”

“I’m a little speechless right now. I’m relieved to be done after five years. Everything at Capitol is a special memory in its own way.”
– Alonzo McLean, BSMIT, Clinton, Md.
Capitol College has been re-designated for three more years as a National Center of Academic Excellence in Information Assurance Education by the National Security Agency and Department of Homeland Security.

Capitol retained its designation after a thorough review of its master’s degree-level information assurance curriculum, which meets the five federal domains, including two at the advanced level. Capitol is one of only four institutions in the nation to achieve this distinction.

“This is not a routine re-upping of an already achieved standard,” said President Michael Wood. “We had to respond to a raised bar of curriculum expectations to achieve any re-certification, and we chose to attempt an even more daunting task of becoming designated at the advanced level.”

Capitol first received certification in 2003, one of a select group of universities and colleges to receive this recognition. All centers hold their designation for three years and must reapply to maintain their title as a national center.

The jointly sponsored NSA/DHS program has been implemented to reduce vulnerabilities in the national information infrastructure by promoting information assurance in higher education and producing professionals with information assurance expertise in various disciplines.

Since the program’s start in 1999, NSA and DHS have named 75 centers in 32 states and the District of Columbia.

Agencies recertify Capitol as National Center of Academic Excellence

Capitol launches new Critical Infrastructures and Cyber Protection Center

Information assurance education, research and partnerships are three goals of the new Critical Infrastructures and Cyber Protection Center at Capitol College, directed by Allan Berg, a nationally recognized expert with more than 35 years of experience in the information assurance field.

The center is currently focusing on seminars and tailored training opportunities for information technology professionals. Its first workshop was conducted July 19-20 by IP3, a company specializing in the nation’s information assurance and information security education and research. The seminar explored the latest critical security issues and addressed the top five IT security challenges identified by corporate security managers.

“This intensive two-day workshop helped foster an environment for dialogue and collaboration among researchers in academics, IT administrators, and professionals in the industry,” Berg said. “We were excited to host it as a way to introduce the new center to those who it can most benefit.”

Along with training and professional development, the center plans to conduct general awareness of security issues to the community. Additional activities include developing alliances with business, government and the other National Centers of Academic Excellence in Information Assurance Education in Maryland.
Launched in 1996, the TOMS satellite was meant to serve science for only two years to map and understand the magnitude of polar ozone depletion. Ten years later, it’s still in orbit and now serves a dual role. In addition to providing valuable scientific data, it is an educational tool for Capitol College students who are the lead controllers of the NASA spacecraft.

NASA officials gave their approval March 3 to make the Space Operations Institute control center at Capitol College the primary ground control system for the satellite. Since 2002 students have been operating TOMS from Goddard Space Flight Center. Now the control center is right on campus in the new William G. McGowan Academic Center.

While large research institutions such as the University of Colorado have been operating satellites for decades, it’s an honor for a smaller college like Capitol to be given a similar opportunity.

“This places Capitol in an elite group of colleges and universities that have an on-campus facility,” said Dave Wagner, SOI director. “Students get to learn and NASA reduces its cost without reducing its risk. This is truly a win-win situation and the majority of the control center project work was accomplished entirely by our students.”

From 9 a.m. to 5 p.m. each weekday, certified student operators or a faculty advisor monitor the satellite’s passing in the morning and late afternoon, send it commands and collect its data. A control center at Goddard tracks the spacecraft during the evenings, weekends and when the students are on break.

Si Tran, a senior studying computer engineering, makes the whole process look so easy. On one Monday morning, she sat in front of a computer, clicked the mouse and spoke on the phone connected to NASA. To get the opportunity to do those seemingly simple tasks, Tran endured months of rigorous training.

“It’s really been great,” she said. “It was overwhelming at first, but I’m really grateful for the chance to get this kind of experience.”

Each semester approximately 20 students like Tran participate in SOI work assignments. Students have tracked satellites as well as helped with launches, conducted research on battery systems and redesigned an upgraded ground system.

When the initial contract expired in late 2005, NASA found additional money in its tight budget to continue funding SOI projects – a testament to the impressed agency’s faith in the program and the success of the students.

“I would like to thank Capitol College for taking up this challenge,” said Edward Chang, contracting officer’s technical representative from NASA Goddard, at the control center readiness review in March. “When NASA says it wants to educate, this is as good a result as we can have.”

NASA is relying on the success of SOI to build a pipeline that meets the demands for the next generation of a talented and skilled workforce. Nearly half of the NASA’s current employees are eligible for retirement in the next year.

Steve Malloy, a sophomore studying network security, is one such student who has applied his initial interest of computers to an SOI project. Malloy, along with junior Sabrina Kirkley, who is studying astronautical engineering, helped plan, design, build, test and troubleshoot the system in the McGowan Academic Center that now controls TOMS.

“It is a real relief that it’s been approved. We’ve been working on this for the last two years. It’s great that we set it up and it’s ready to go,” said Malloy, who is preparing for a new challenge – setting up the system on a Linux operating system.
A Breakfast of Thanks

College administrators and students showed their gratitude to college donors and supporters April 6 at the 16th annual Scholarship Appreciation Breakfast, held for the first time in the William G. McGowan Academic Center.

The honored guests had the chance to meet the students who are the recipients of their gifts. Todd McCluney, a Class of 1999 alumnus, presented a check to establish an endowed scholarship in his and his wife’s name.

Also attending the breakfast was Norm Peterson, the father of a Capitol alumnus who died in August 2005. The family of Karl Peterson, who graduated in 1994 with a degree in electrical engineering, set up a memorial fund in his name.

“Karl’s experience at Capitol College was the high point of his life. Karl blossomed at Capitol,” Peterson said. “And some of what he did here was showing other students the way.”

Making Connections at Career Fair

Capitol College hosted its largest Career Fair in recent years as more than 30 employers and recruiters set up displays and booths April 7 in the McGowan Academic Center. A few hundred Capitol students, alumni and job seekers from outside the college met with the dozens of recruiters.

“We had a great turnout,” said Tony Miller, director of career services. “Capitol students were talking to and meeting the employers and really getting into the job-hunting experience.”

The daylong event came during what is being called the best job market in four years for new graduates. Along with the Office of Career Services, the fair was sponsored by the student chapters of the National Society of Black Engineers, the Society of Women Engineers and IEEE, as well as the Student-Leadership Advisory Board.

Juniors Jump Start College Search

High school juniors swarmed the campus April 20 during the third annual Jump Start Juniors open house, sponsored by the Office of Admissions. The daylong event brought nearly 300 high school students from across Maryland to campus for an early start on their college search.

Students like Brittany Brewton made the day worthwhile. Brewton, a junior at Baltimore Polytechnic Institute, knew very little about Capitol before arriving on its campus that morning. At the end of the day though, Capitol was on the top of her list as a college choice.

“I’m really considering it,” said Brewton, who would like to major in computer engineering. “I had the chance to talk to students and staff and really get a grasp on what Capitol has to offer.”

Students toured the campus, learned about the admissions process, took a ride in a flight simulator and had a barbeque lunch. Two students won iPod music players while many others walked away with gift cards and Capitol College clothing and backpacks.

Business Accreditation

The business and management programs of Capitol College received official accreditation in March by the International Assembly for Collegiate Business Education (IACBE).

Capitol began offering its MBA degree in 2003 and its bachelor’s in business administration in fall 2004. The introduction of these programs marked a transition for the college as it began integrating business into its traditional engineering and
technology-related curriculum.

IACBE is an internationally recognized accrediting body for business and business-related degree programs in four-year and graduate-level institutions. Capitol joins a growing list of nearly 200 IACBE member institutions.

Students Let Loose at Spring Fling

The sounds of spring were in the air as students took a ride in a flight simulator, munched on snow cones and sticky cotton candy and relived their youth with kickball.

The Student-Leadership Advisory Board hosted its annual Spring Fling on April 20, letting students enjoy the warm weather and relax on a Thursday afternoon. The event followed Jump Start Juniors, the campus-wide recruiting event for high school juniors.

“...I had a really good time, and the event was a great way to get students involved and outside,” said Phil Caffo, a network security sophomore who was playing kickball. “I don’t usually see many students outside on a nice day like this.”

Spring Fling was just one of the many popular events organized for students this year. Others included a casino night, coffeehouses and the most popular event – the Red, Black and White Glow in the Night Party following the college’s logo launch in February.

Sophomore selected for National Science Foundation research program

Sophomore Daniel Millington was one of several hundred students selected to the National Science Foundation-sponsored Research Experiences for Undergraduates at Hope College in Holland, Mich.

From May 29 to August 4, Millington is working with Hope College faculty to help develop an email client that is more accessible and user-friendly for older adults. Millington, a graduate of Surry High School in Clinton, Md., began programming computer games at an early age. He has taken his programming skills to advanced levels, even winning Capitol College’s programming contest by correctly solving the most problems.

“I’m excited to have this kind of experience,” said Millington, a computer science student. “The project began in 2004, and we’re continuing it. I’m really hoping that my group can complete the project.”

Letteer, a network security student, is a senior information assurance manager with the U.S. Marine Corps. Letteer received the honor following several accomplishments with the Marines.

“I have been a dynamic leader in the information assurance workforce transformation, guiding the Navy and Marine Corps to set high training standards,” said Sandra Smith, the Navy’s information management/information technology workforce manager.

He moved the Marines and Navy closer to implementing new information assurance training standards outlined by the Department of Defense and organized the purchase of a web-based tool that will revolutionize the preparation, submission and maintenance of security certification documents throughout the Marines.

Graduate student awarded Federal IT 100 Award

The federal government named graduating student Ray Letteer as one of its 100 most accomplished IT employees, as chosen from among its entire civilian and military workforce.

Letteer, a network security student, is a senior information assurance manager with the U.S. Marine Corps. Letteer received the honor following several accomplishments with the Marines.
’66,’68 James Ferstl, AAS, BS, retired in January after 10 years of private industry and 35 years of government service. His last position was as the command historian for the Defense Information Systems Agency. Ferstl is enjoying traveling with his wife of 31 years, Marilyn, and visiting their four children and two grandchildren. He is enjoying gardening, fishing, hiking and camping. His four years in the Air Force (1960-1964) as a cruise missile guidance system instructor launched his career in electronics and technical training. During his career, employers included the U.S. Air Force, Johns Hopkins University-Applied Physics Lab, Civil Service Commission, U.S. Coast Guard, Naval Computer and Telecommunications Command and the Defense Information Systems Agency. He received a master’s of education from the University of Maryland in 1973.

’70 Richard Zuschlag, BS, was named honorable mention by Inc. magazine as the 2005 Entrepreneur of Year. Zuschlag is chairman and CEO of Acadian Ambulance Service in Lafayette, La., which he founded in 1971. Prior to founding Acadian, he worked as an engineer for Greenville Broadcasting Company and Westinghouse Electric Company Space and Defense Center.

The ambulance service played a critical role during Hurricane Katrina in the rescue and evacuation of the area’s residents, as well as airlifting hospital supplies and other vital supplies. He and his company were recognized by several media outlets and associations for leadership and heroism during the disaster. The service operated the only working radio system in the region.

“When the success of our evacuation of the hospitals was because of my communications background and my determination to have back up systems in place,” he said. “There is no question that some of the engineering courses I took at Capitol helped me in our communications and contributed to my success in the evacuation of the New Orleans hospitals.”

He lives in Lafayette with his wife, Elaine. They have three children, Richard Blair, Erin Elizabeth and Joseph Blaise.

’03 Laura Dugan, BS, is a communications specialist with Quality Insights of Pennsylvania in Harrisburg, Pa., a non-profit organization funded by the Centers for Medicare and Medicaid Services dedicated to improving the quality of care for people on Medicare. In addition to being a communications specialist, Dugan is the company’s copyright permission lead, website administrator and MedQIC team lead. She also works with the Pennsylvania Cancer Control Consortium. In her free time, Dugan is known as The People’s Correspondent, the official morning show blogger for local radio station 105.7 The X. She earned a master’s degree in professional writing from Towson University in May 2005. She can be found on the Web at www.lauradugan.com or www.myspace.com/mornings1057.

’04 Juan Harnett, MS, recently accepted a position as a senior systems software engineer with Athena Innovative Solutions, in support of the Counterintelligence Field Activity. Harnett formerly worked with Maden Technologies Inc. of Arlington Va., under contract with DARPA. He is also a member of the National Society of Black Engineers. Harnett lives in Woodbridge with his wife, Renee.

’05 Brian Webb, BS, is a designer for the Allegis Group in Hanover. He lives in Baltimore.

’06 Charles Hodanics, BS, is a software developer for Quantum Leap Innovations. He lives in North East, Md.

Susan Taylor, BS, plans to pursue a master’s degree in electrical engineering from Johns Hopkins University. She lives in Silver Spring.
Two professors received their second master’s degree from Capitol College at commencement. **Adjunct Professor Christian Cooke** earned a master of science in computer science. He also holds a master of science in information and telecommunications systems management. **Associate Professor Andrew Mehr** earned a master of business administration. He previously received a master of science in information architecture.

**Assistant Professor Angela Walters** has been certified as a flight controller and mission planner for the TOMS-EP mission. Walters serves as a faculty advisor to the Space Operations Institute.


A second printing is in the works this summer for the computer science text written by **Professors Julie Anderson and Hervé Franceschi**. The 1,177-page book, *Java 5 Illuminated*, first hit bookstore shelves in May 2005. It has been adopted by many colleges, including Boston University, the University of Arizona, the University of Wisconsin-Milwaukee and, of course, Capitol College. 

*Java 5 Illuminated* was published by Jones and Bartlett Publishers.

The Alpha Chi honor society named **Assistant Professor Helen Barker** the 2005-2006 Esteemed Professor. Barker, a professor of business and information management, began at Capitol College as an adjunct faculty member five years ago. She holds two bachelor’s degrees from Thomas Edison State College and a master’s from Strayer University. The Esteemed Professor Award is presented each spring to celebrate excellence in teaching. Alpha Chi members annually nominate professors for the distinction, and the entire student body votes to select one Esteemed Professor.

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