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WEARE...MARSHALL.

The Newsletter for Marshall University

August 16, 2017

Conversion to bi-weekly pay to take place Sept. 15

The long-anticipated state conversion to bi-weekly pay is imminent. The last planned bi-monthly paycheck will be Thursday, Aug. 31, 2017, for the pay period of Aug. 1 through Aug. 16. The first bi-weekly paycheck is planned for Friday, Sept. 15, 2017, for the pay period of Aug. 17 through Sept. 1.

Please visit the Pay Changes website for a schedule of all pay dates through Aug. 31, 2018.

If you have a specific question or need additional information concerning the bi-weekly conversion, please e-mail paychanges@marshall.edu.

TimeClock Plus website available for university community



Marshall University's Offices of Payroll and Human Resource Services have created a website with further information on TimeClock Plus, the new time and attendance system that will begin implementation on Thursday, Aug. 17. University community members are encouraged to

review the resources available on the new TimeClockPlus website found here: www.marshall.edu/finance/payroll/timeclock-plus/.

This will be a phased implementation approach, with student workers, temporary staffing, and exempt employees using the new system on Aug. 17. Employees who report their time on purple time sheets will start using the new system during the first pay period in September. These changes will not affect MURC or other non-state employees.

If you have further questions, e-mail human-resources@marshall.edu or call 304-696-6455.

WOW Activities in full swing this week



Week of Welcome officially kicked off yesterday with freshman move-in, the annual family picnic and evening activities on the Huntington campus.

Marshall's Week of Welcome is an opportunity for freshmen to find out what it means to be a son or daughter of Marshall, get acquainted with campus before upperclassmen return, learn how to take advantage of the

academic and support services provided and have fun.

Events continue throughout this week with classroom sessions and larger events touching on sexual assault and substance abuse awareness, health and safety, bystander responsibilities, diversity and a new program designed to explore the history of our university.

The complete schedule of WOW activities for the Huntington campus, the South Charleston campus, the Mid-Ohio Valley Center and the Teays Valley Regional Center can be found at www.marshall.edu/wow.

If you encounter a student who is lost or has specific questions related to WOW that you cannot answer, please refer them to the MSC Information desk during the below hours or call 304-696-3169.

WOW Information Desk, Memorial Student Center

Wednesday: 10 a.m.-3 p.m. Thursday: 10 a.m.-3 p.m. Friday: 11:30 a.m.-3 p.m. Saturday: 10 a.m.-2 p.m.

Marshall University, GroHuntington to host yoga in the garden today



The Marshall University Sustainability Department is teaming up with GroHuntington to offer Yoga and Green Mindfulness from 3 to 4 p.m. Wednesday, Aug. 16, at the Marshall Student Garden, located behind the Career Services building near 17th Street and 6th Avenue on the Huntington campus.

"We want the Student Garden to be a place of health, healing, education and community outreach," said Eve Marcum-Atkinson,

who manages the Sustainability Department at Marshall. "Partnering with GroHuntington on a community yoga event seemed like a natural choice."

The Student Garden is an ongoing conservation and sustainability project of the Marshall University Sustainability Department (www.marshall.edu/sustainability,) serving as a resource for education, outreach and food security for the campus and greater community.

GroHuntington promotes the healing power of working with the earth. The nonprofit organization works to provide opportunities to work with the land on its farm and learn important coping, life and job skills, while creating a healthy community through recovery supplement and community programs. Learn more at www.facebook.com/grohuntington.

Information Technology, Libraries and Online Learning to host Tech Up sessions August 17 and 30



Students, faculty and staff are invited to attend a Tech-up Open House Thursday, August 17 from 4 to 6 p.m. or Wednesday, August 30 from 5 to 7 p.m. in Drinko Library 138 on the Huntington campus.

Brush up on your technology skills in navigating the library's electronic resources and services and using Blackboard through MUOnLine. IT staff will be on-hand to provide an overview of myMU and assist with other computer or wireless questions.

Learn tips and tricks to help you hit the ground running with research and writing support; accessing online librarians and guides; and maximizing e-books and e-journals. Basic Blackboard tools and utilizing the free 24/7 Blackboard tech support service will also be covered. Refreshments and door prizes will be provided.

"Tech Up" was created in response to a request by a Marshall University student. Originally developed for nontraditional students, Tech Up has one purpose—to help all students succeed at Marshall by being technologically up to speed by the time they take their first course.

Students can also self-enroll in the online version of Tech Up through MU OnLine/ Blackboard. Log in, click on the Organization tab, search for "Technology & Non-Traditional Students," Enroll.

For additional information, contact Tiffany Bowes at bowes1@marshall.edu or 304-696-4801.



The university community is welcome to attend a reception honoring our Director of Student Financial Services, Dr. Kathy Bialk, as she embarks on a new journey as the Assistant Provost/Director of Financial Aid at the University of Iowa. We wish her the best in her new position!

Thundering Herd Rally returns to Pullman Square tomorrow



Marshall University and Kindred Communications' 93.7 the DAWG, flagship station of the Thundering Herd IMG Sports Network, are coming together again to host a special night of the Summer Concert Series and kick off football season Thursday, Aug. 17, from 6 until 10 p.m. at Pullman Square in downtown Huntington.

In addition to the vendors and activities that have taken place each week of the concert series, this event will also include a

fashion show, photo booth, inflatables, the Marching Thunder, Marco and Marshall University Athletics.

The first hour will include a fashion show featuring Marshall's new licensed gear. The show will give fans the opportunity to view some of the new fall apparel available at various local retail locations.

"We always encourage Marshall fans to wear their green and show their Thundering Herd spirit," said Mallory Jarrell, Marshall University marketing and branding coordinator. "The fashion show will feature some of the new and trendy items that are available at local retailers. We will be continuing to encourage fans to wear their green and participate in Green Fridays throughout the season. There will also be themed events for football games that fans are encouraged to participate in this season."

Madhouse will play from 7 until 8 p.m., followed by an hour-long pep rally featuring the Marching Thunder, cheerleaders, dance team, Marco and Marshall University coaches and athletes, including Head Football Coach Doc Holliday and his players.

"I know our group is fired up and ready to take on Miami and this event is the purest form of a pep rally. I have said it many times before but I will say it again, our community support is tremendous and the Herd Rally event is a testament to what Thundering Herd Football means to Huntington and what Huntington means to The Herd," Holliday said. "I know for sure it will be a packed house."

Head men's basketball coach Dan D'Antoni and members of the men's basketball team will also be in attendance.

"I have been preaching community since the day I arrived here three basketball seasons ago. This place is special, very special, and an event like the Herd Rally is great example of why we are different in a good way," D'Antoni said. "I have put an emphasis on the band, the spirit squad and the overall importance of the crowd on the outcome of our games. This night marks the beginning that it is time to take up a notch."

Marshall student-athletes will be available throughout the evening to sign autographs and take photos with fans.

The Marching Thunder, cheerleaders and dance team plan to energize the crowd with a few fan favorites and a taste of what fans can look forward to seeing and hearing in the stadium this season.

"The Marching Thunder is excited to return to Pullman Square to kick off the school year and celebrate the return of Marshall Football. This is one of our favorite performances of the season," said Dr. Adam Dalton, director of athletic bands at Marshall University.

Guests will also have the opportunity to register to win prizes, including gift cards from retailers participating in the fashion show and Thundering Herd football tickets. Winners will be announced at 9 p.m. Fans must be present to win.

Here is a brief look at the event schedule:

- 6 p.m. Music by Hits 97.9
- 6:30 p.m. Herd Fan fashion show
- 7 p.m. Madhouse take the stage
- 8 p.m. Marshall University pep rally
- 9 p.m. Madhouse return to the stage

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INTO Marshall, Campus Activities Board to host 'Pictures and Popcorn with the President' Aug. 19



students starting at 8:30 p.m. Staff and faculty are also welcome to attend this event.

Japanese cultural ambassador at Marshall offering outreach to community



Shintaro "Shinn" Takase, originally from Kyoto, Japan, has come to Marshall as part of the Japanese Outreach Initiative program, with a mission of going out into the community to introduce people of all ages to the Japanese culture.

He will be at Marshall for two years, after spending a year teaching

Japanese to high school students in Portland, Oregon. He has earned both undergraduate and graduate level degrees in education in his home country, and hopes to visit schools, libraries, senior centers and various civic groups throughout the region to share his culture.

"I was eager to teach Japanese, and this program seems to raise awareness of Japanese culture. I'm very interested in that," Takase said. "To maintain a good relationship between the United States and Japan, and for children and adults to enhance their understanding of different cultures, is significant."

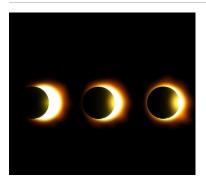
With Toyota Motor Manufacturing West Virginia located in Putnam County and other Japanese businesses throughout the region, it's a wonderful opportunity to foster relationships between cultures, said Dr. David Pittenger, interim associate vice president for outreach and continuing studies, who will serve as Takase's supervisor during his time at Marshall.

"Central to the mission of Marshall University is the internalization of its campus and academic programming," Pittenger said. Marshall has a breadth of international students and faculty, which – along with programs such as the Japanese Outreach Initiatives – helps prepare students for life and commerce in a diverse world, he said.

Takase, who is 26, will also be teaching as part of a Saturday school program that has been established in Putnam County for Japanese children in the area to help them maintain their Japanese curriculum here in the United States. He follows others who have served as Japanese Outreach Initiative coordinators at Marshall. *Azusa* "Hanah" Yamada held the position beginning in 2011. The Japanese Outreach Initiative has funded Takase's stay at Marshall through a grant program the organization created 16 years ago. Currently, there are 10 Japanese coordinators working with various universities and organizations in the United States.

Anyone with ideas or questions about how Takase can help share the Japanese culture with their organization or group can reach him at 304-696-8881 or takase@marshall.edu.

Marshall to host solar eclipse viewing event



Marshall will host a free solar eclipse viewing event for the Marshall and surrounding communities from 1:07 to 3:56 p.m. Monday, Aug. 21, at Buskirk Field, with the peak viewing time expected to be 2:34 p.m. All are welcome.

Free solar eclipse viewing glasses will be handed out, as well as free moon pies. A telescope view of the eclipse will be projected onto a big screen. Space-themed music and fun science facts will be part of the event as well.

The event is sponsored by Marshall's College of Science, Student Affairs groups, and West Virginia Science Adventures.

For more information about the event, contact Dr. Suzanne Strait, director of West Virginia Science Adventures, at WVScienceAdventures@gmail.com.

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Drinko Library and Information Center to host open house Aug. 23

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The Greatest Adventure of the Semester Awaits!	i i
Join us for a	i i
Progressive Open House Reception	
Progressive Open House Reception Wednesday, August 23 2-6 p.m. Drinko Library and Information Center	M
Circulation, Learning Commons, IT Service Desk, Campus ID Office, Inter-Library Loan, Writing Center, Instructional Design Center, Marshall Digital Scholar, and more!	
Tours of the IT Data Center will be available hourly.	_ 🕖 '
www.marshall.edu/dinkoopenhouse	
For more information, contact Kell Johnson at phrasen286masthall.edu or 304-656-657. Spontors: Libraries and Online Learning & Information Technology.	l 🚺 🛛
	PASS FREE

The faculty and staff are invited to join Libraries and Online Learning and the Division of Information Technology for a progressive open house from 2 to 6 p.m. Wednesday, Aug. 23, at the Drinko Library and Information Center on the Huntington campus.

During the event, guests will be encouraged to travel around Drinko Library to learn more about IT and library services including circulation, inter-library loans, the Writing Center, Instructional Design Center, ID Office, IT Service Desk, Marshall Digital Scholar and more!

"We are hoping our new format will help faculty become acquainted with both our new and existing services in an informal and inviting way," said Dr. Monica Brooks, associate vice president of libraries and online learning. "It's also an opportunity for them to meet the faculty and staff to ask questions and learn more about the research and curriculum support networks the libraries and online learning have at our disposal."

Information Technology staff members will be in attendance to assist with questions about IT infrastructure and services.

"The Division of Information Technology is happy to welcome faculty to our part of the campus," said Jody Perry, executive director of technology services. "There will be members of our IT Infrastructure team as well as our IT Services team on hand throughout the open house to answer any IT-related questions, give presentations on myMU and MUMobile, and lead hourly tours of the data center."

"The data center is where the magic happens. The 1800-square-foot, state-of-the-art facility is equipped with 87 physical servers, 502 virtual servers and more than 270 terabytes of storage. It's what controls e-mail, Banner, myMU and all other IT services. Visitors will be given an overview of the security and monitoring in place, as well as a chance to see the VMware virtual environment and Big Green Cluster up close," Perry said.

The event will also showcase the new co-location of the Campus ID office and IT Service Desk as well as information about additional changes to IT services.

"We are also excited to share the changes we've made to better serve the university," Perry, said. "The IT Service Desk and the Campus ID Office have moved into their new locations on the first floor of the Drinko Library and Information Center and we have completed several 'Behind the Scenes' updates in and around campus that affect the entire university community."

Marco will be available for photos from 4 to 5 p.m.

For more information, visit www.marshall.edu/drinkoopenhouse or contact Kelli Johnson at johnson28@marshall.edu or 304-696-6567.

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Master of Social Work program honors first graduating class

The Marshall University Department of Social Work held a ceremony for its first Master of Social Work (M.S.W.) graduating class Friday at Heritage Farm's Heritage Hall.

Over 20 graduate students will receive their diplomas later this month and this ceremony recognized the hard work and effort each student has put forth over the last two years, according to Dr. Peggy Proudfoot Harman, director of the M.S.W. program.

"The M.S.W. program began offering classes last fall and received 'candidacy' status through the Council on Social Work Education in February 2017. We are on track to receive 'full accreditation' in February 2019," Harman said. "Our students and faculty have already joined with the community to make positive differences through work in field practicum placements and through student organization events. M.S.W. students are fortunate to be supervised in field placements by tremendously skilled and knowledgeable professionals."

Creating a productive and successful program takes collaboration between the university and community, Harman noted.

"We have excellent collaborative relationships with our university and community partners. Our faculty is extremely proud of our students who work tirelessly assisting other professionals to address behavioral health facing our community and state. Social workers are critical to client success in all areas of behavioral health, and often work as therapists in a variety of behavioral health roles," Harman said.

Harman said this region has been in need of master's-level social workers for decades.

"We are very excited about the major contribution these fine professionals are making in the field. Academically educated professional social workers are highly sought after by schools, hospitals, behavioral health centers and in public policy positions," Harman said. "We are extremely proud of all our students in this first class. These initial graduates have set a high bar for graduating classes to come."

To learn more about Marshall's M.S.W. program, visit www.marshall.edu/social-work.

Marshall counseling programs receive accreditation

Marshall University's graduate counseling programs in clinical mental health and school counseling have been granted accreditation by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Council for Higher Education Accreditation (CHEA).

Dr. Lori Ellison, professor and program director for counseling, said that she received notice of the accreditation earlier this month.

"Achieving this milestone will provide our students and graduates recognition for their level of preparation in the field of counseling and assist with the credentialing process, not only in West Virginia, but all around the country," Ellison said.

Faculty and staff members in the program, on both the Huntington and South Charleston campuses of Marshall, spent the last 2 years in preparation and self-study to submit the application for accreditation, Ellison said. A site visit took place in late April and the CACREP board made its decision in mid-July.

For further information on counselor education and accreditation, visit www.cacrep.org online, or contact Ellison by phone at 304-746-2086 or by e-mail at ellisonl@marshall.edu.

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Trowbridge appointed to West Virginia Archives and History Commission



David Trowbridge, an associate professor of history and creator of the Clio history app, has been appointed to the West Virginia Archives and History Commission to serve through June 30, 2020. A Huntington resident, Trowbridge joined Marshall in 2008 after earning his Ph.D. from the University of Kansas. Along with teaching, he serves as director of African and African American studies in Marshall's history department, housed in the College of

Liberal Arts, and he created Clio, an app that provides GPS-guided information on historical and cultural landmarks in both small towns and large cities across the United States. Information about Clio also can be found online at www.theclio.com.

The West Virginia Archives and History Commission helps the state's effort to collect and preserve West Virginia historical records, including significant letters, documents, reports, photographs and more. It helps organize and make available historical information to disseminate and celebrate the state's rich history.

For more information, visit http://www.wvculture.org/history/archivesindex.aspx.

Expanded spa services now available at Marshall Plastic & Reconstructive Surgery

Marshall Health has expanded its line of spa services at Marshall Plastic & Reconstructive Surgery to include dermaplaning and a variety of facials.

Dermaplaning is a type of exfoliation that removes the top layer of dead skin cells and fine vellus hairs, or "peach fuzz," to reveal a smoother, brighter complexion. The dermaplane process takes about 30 minutes. Dermaplaning is also safe for people with sensitive skin or rosacea.

"By removing that top layer of dead skin, moisturizing and anti-aging products can penetrate deeper into the skin, making them more effective," said licensed aesthetician Trish Yates McCarty, who joined the practice of board-certified plastic & reconstructive surgeons Adel A. Faltaous, M.D., Farid B. Mozaffari, M.D., and Peter D. Ray, M.D., earlier this month.

Additional spa services now available at Marshall Plastic & Reconstructive Surgery include chemical peels, acne facials, deep cleansing facials and the "express" facial.

"The express facial is a relaxing, spa facial that is perfect for people who have never had a facial before and may be apprehensive about the process," McCarty said.

These services and more are available by appointment. For more information or to schedule an appointment, call Marshall Plastic & Reconstructive Surgery at 304-691-8910.

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Marshall to offer ACT preparation in mathematics

Marshall University's College of Science and West Virginia Science Adventures will co-sponsor ACT math study boot camps this fall for high school students. Three of these Saturday and Sunday sessions, taught by Marshall University math professors, will be offered on weekends before each ACT testing date.

They will be from 1 to 4:30 p.m. Sept. 2-3, Oct. 14-15, and Dec. 2-3 in Room 514 at Smith Hall. Cost is \$140 per weekend.

To sign up, contact Dr. Suzanne Strait, director of West Virginia Science Adventures, at WVScienceAdventures@gmail.com. Learn more at http://ssawv.com/act-test-prep.

School of Pharmacy conducts White Coat Ceremony for incoming class



The Marshall University School of Pharmacy officially welcomed members of the class of 2021 Friday with a traditional White Coat Ceremony signifying the beginning of their pharmacy education journey.

Speakers included Brian A. Gallagher, R.Ph., J.D., interim dean; Kimberly Broadel-Zaugg, R.Ph., chair of pharmacy practice,

administration and research; Faruk Khan, Ph.D., chair of pharmaceutical science and research; and Robert Stanton, M.B.A., Pharm.D., assistant dean of experiential learning. In addition, Nancy Sullivan, with the West Virginia Department of Health and Human Resources, provided special remarks.

Some interesting statistics about the Class of 2021 include the following:

- 49% of the 74-member class are West Virginia residents;
- Non-resident students are from a total of 10 states; including Kentucky, Ohio, Pennsylvania, Virginia, Texas, Georgia, Florida and Michigan;
- 50% are male and 50% are female;
- 7% self-identify as underrepresented minorities;
- 27 members of the class completed their prerequisite coursework at Marshall.

Neurosurgeon Nicolas Phan, M.D., joins Marshall School of Medicine



The Marshall University Joan C. Edwards School of Medicine, Marshall Health and Cabell Huntington Hospital medical and dental staff have announced the addition of Nicolas Phan, M.D., to its team of neurosurgeons.

Phan, a board-certified, fellowship-trained neurosurgeon, has been appointed an associate professor in the department of neurosurgery at

the Joan C. Edwards School of Medicine. He specializes in neurotrauma, including traumatic

brain injury, decompressive cranial surgery and spinal cord injuries; degenerative spine surgery, including minimally-invasive spin surgery; and neuro-oncology, including brain tumors, meningiomas and spine oncology.

A practicing neurosurgeon with nearly two decades of experience, Phan most recently served as assistant professor of neurosurgery at the University of Toronto/Sunnybrook Health Sciences Centre in Toronto, Ontario. He is a past recipient of the Neurotrauma Synthes Award for research and the Section on Neurotrauma and Critical Care Synthes Award, both from the American Association of Neurological Surgeons/Congress of Neurological Surgeons.

Phan received his medical degree from McGill University in Montreal, Québec. He completed a neurosurgery residency and a neurotrauma fellowship at the University of Toronto, followed by a neurosurgery/neurotrauma fellowship at the University of San Francisco in San Francisco, California. Phan is certified by the American Board of Neurological Surgeons.

Phan is accepting new patients and referrals at Marshall Neuroscience, an outpatient department of Cabell Huntington Hospital, at 1600 Medical Center Drive, Huntington. For appointments, please call 304-691-1787.

Marshall mathematics students present at national MathFest conference

Seven Marshall students attended MathFest 2017, a conference hosted by the Mathematics Association of America (MAA), July 26-29 in Chicago, with five of them giving presentations and two of them walking away with awards for outstanding presentations.

Two presented in sessions for the math honor society Pi Mu Epsilon, receiving distinction for their presentations. Marshall senior Kiersten Potter, who is majoring in secondary math education, chemistry education and applied mathematics, gave a presentation titled "Explicit construction of regular polygons," in which she used origami. Senior Steven Rollins, who is majoring in statistics, applied mathematics, economics and finance at Marshall, gave a presentation titled "Optimizing refuse collection in Huntington." Each received a stipend for their outstanding presentations.

Three other Marshall students gave presentations as well. Kira Owsley, a junior, presented "On the existence of primitive cycle systems" regarding graph theory. Her information was based on work she completed through a NASA Space Grant project in the spring of 2017 and the Summer Undergraduate Research Program.

Kevin McDaniel, a graduate student, presented on "Optimizing ambulance service in Wayne County, West Virginia," based on research he had done in collaboration with Wayne County 911. His research will be used as the county considers changes to its ambulance system for next year.

David Hannan, a senior, gave a poster presentation on "Optimizing refuse collection" based on information he had gathered while working with Rollins as part of a Preparation for Industrial Careers in Mathematics project. The goal of PIC Math projects is to engage mathematics students in open-ended community-based research projects.

The Marshall students were among over 200 college students from across the country. This is the third summer in which Marshall has taken students to the conference, said Dr. Michael Schroeder, an associate professor of mathematics. Not only does it get Marshall's name out there and give students an enriching experience, but it gives students some perspective about what they're able to accomplish, Schroeder said.

"They can see the quality and caliber of work they're doing is on par with students from an array of institutions, Ivy League or otherwise," he said.

The annual conference is sponsored by the MAA, which aims to advance the mathematical sciences, especially at the collegiate level. It's the largest professional society that focuses on mathematics accessible at the undergraduate level, and its members include teachers at the college and high school levels, graduate and undergraduate students, mathematicians, computer scientists, statisticians and others. For more information about MathFest 2017, visit https://www.maa.org/meetings/mathfest-2017.

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Marshall senior wins Wire Reinforcement Institute Scholarship



Miranda Clark, a Marshall University senior majoring in engineering, has won one of three Wire Reinforcement Institute scholarships. The scholarship is designed for students who are undergraduates or graduate students majoring in structural or civil engineering.

Clark was the only undergraduate selected for the scholarship this year and is the first Marshall student to win the award. A member of the Society of American Military Engineers and American Society of Civil

Engineers, Clark has also volunteered with the Rotary Club of Huntington and the Richard F. McCormick Technical Conference.

She is currently working with TRC Engineers in Charleston, West Virginia, as an assistant engineer. Her eventual plans include becoming a professor in structural engineering.

"The content is fascinating," she says, "and I want to help others see the beauty and wonders that lie within all structures."

The Wire Reinforcement Institute is composed of industry producers and associates affiliated with structural welded wire reinforcement. The scholarship is designed to encourage students to study civil or structural engineering, and support them throughout their studies.

For more information on the Wire Reinforcement Institute or the scholarship, please visit wirereinforcementinstitute.org/.

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Marshall student to research black holes

Marshall student Rae Stanley will be borrowing time on one of North America's most powerful telescopes this year to study black holes in galaxies as far away as 6.8 billion light years.

Stanley, a junior majoring in physics from Ona, West Virginia, plans to use the spectrograph of the Vatican Advanced Technology Telescope (VATT), which is located in Safford, Arizona, known for its clear night skies. This fall, she'll be traveling there and collecting data to determine if black holes can create new atoms.

The premise of her study is this: According to research, the nuclear process of rapid neutron capture is responsible for more than half of the heavy elements found in the universe. Right now, scientists believe that supernovae are the only things in the universe that can create these heavy elements, but Stanley is looking to test the proposal that they can be created when supermassive black holes take in too much matter and shoot it out in jets of particles, which typically occurs at about 10 percent the speed of light. She's researching whether rapid neutron capture is occurring there as well.

Finding evidence of rapid neutron capture in other phenomena would change scientists' understanding of important nuclear processes and help them better understand the history of the universe. Stanley's research is speculative but could produce useful information whether this theory pans out or not, said her advisor, Jon Saken, an associate professor of physics at Marshall.

"Our whole understanding of the development of galaxies and the early universe is based on the conclusion that elements are made only in stars," Saken said. "The only exception was during the Big Bang, when helium and trace amounts of lithium and beryllium were made. But that is it. Yet, early on active galaxies dominated the universe. If they could make some of the heavier elements, that changes a lot of ideas and models.

"The suggestion that they could is the speculative part. Rae wanted to try testing that. It is very ambitious. This is more of a graduate-level project. Very, very few undergraduates would attempt something like this, and very few would have access to the telescope time to do so."

Stanley said she landed on the idea during talks with Saken and faculty from other area institutions while at the West Virginia Science Public Outreach Team training at Green Bank in September of 2016. Saken said he is grateful to his connection at the VATT, who helped Stanley get a deal on the telescope time, a rare opportunity. She still needs \$5,000 for the project.

Stanley's plan to measure the black hole masses "is a very clever way to do some useful science at the same time," Saken said. "The type of active galaxy she is looking at is still not completely understood. Measuring the masses will help in that regard."

For more information about the project, or to contribute to Stanley's expenses for the project, contact Saken at saken@marshall.edu.

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The next regular issue of *We Are...Marshall* will be distributed Aug. 23, 2017. Please send items for consideration to WAMnewsletter@marshall.edu by 5 p.m. Monday, Aug. 21.

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To read the content of this newsletter online, please click on the following link: www.marshall.edu/wamnewsletter/August-16-2017.