

FIRST ANNUAL LABORATORY COAT CEREMONY

On Feb. 18, 2022, the UTC chemistry program celebrated its first Laboratory Coat Ceremony. Modeled after the White Coat Ceremony performed by many nursing degree programs, the purpose of the ceremony is to induct into the chemistry profession students who are making progress toward their degrees. Students who pass CHEM 3010 Organic Chemistry 1 with at least a C qualify for the induction ceremony.

This first year, 68 chemistry and biochemistry majors qualified. Sixteen students participated, with each selecting a faculty mentor to present them their lab coat. Professor Tom Rybolt spoke about the responsibilities of being a professional chemist, and Han Park presented opportunities for students in the American Chemical Society, the world's largest professional scientific association.



Jisook Kim robes her mentee, Lillian Wooten (Chemistry '25)

DEPARTMENT NEWS

COMMEMORATING A LANDMARK DISCOVERY

By Shawn Ryan

When you brush your teeth, thank Murray Raney of Chattanooga. If you play guitar, thank Murray Raney of Chattanooga. As you sit on the driver's seat of your car, thank Murray Raney of Chattanooga.

In his home laboratory on Oak Street in 1926, Raney created a nickel-aluminum alloy that is today known as Raney nickel. It is essential in making nylon, which is used in toothbrush bristles, guitar strings, backpacks and, of course, women's hosiery. Many plastic components in cars also use nylon for its strength and ability to be cast in many shapes, including polyurethane foam in auto seats.

Raney nickel was granted a patent by the federal government in 1927 and this year is being honored for its invaluable contributions to the world with the American Chemical Society's National Historic Chemical Landmark designation, only the third time this stature has been awarded to a Tennessee-based invention. To celebrate, the UTC Department of Chemistry and Physics hosted a commemorative event where a plaque honoring Raney was unveiled.

"Every day we use or come into contact with materials made from chemicals whose preparation involved the use of Raney nickel," said Robert

Mebane, a chemistry professor at UTC from 1983 until 2018. Mebane wrote the proposal for Raney's selection as a historic landmark by the American Chemical Society and chaired the committee behind the effort

Raney nickel—also known as spongy nickel—originally was developed to convert cottonseed and vegetable oils into cooking shortening. It also is used in a process to create the sweetener sorbitol.

"Many toothpastes and mouthwashes use sorbitol as a sweetening agent because we like the taste of sweet and, secondly, sorbitol does not promote oral bacteria growth," Mebane said.

Raney's Oak Street lab was in Fort Wood, adjacent to UTC, and may have been on property that's now part of the University campus, said

Keenan Dungey, head of the Department of Chemistry and Physics. County records don't show the exact address of the lab, so confirming whether it was on UTC property isn't possible, Dungey said.

Irvine Grote, former head of the Department of Chemistry and the namesake of Grote Hall, was a personal friend of Raney. Like his friend, Grote was an inventor—of dihydroxy aluminum sodium

carbonate, resulting in Roloids antacid tablets—whose discovery also impacts society to this day. The plaque honoring Raney will be placed near the entrance to Grote Hall's large lecture hall, Dungey said.

Raney's original source for his nickel-aluminum alloy was a truck crankcase. In 1963, he sold his Raney Catalyst Co., Inc. to W.R. Grace and Co., which continues to produce Raney nickel today at its manufacturing plant in Chattanooga.

In 1989, the Grace company established the Murray Raney Scholarship at UTC. To date, it has helped 49 chemistry majors pursuing graduate studies or a career in the chemical industry.

The previous two Tennessee winners of the American Chemical Society's National Historic Chemical Landmark status are acetyl chemicals

from coal gasification at Tennessee Eastman (1995) and the production and distribution of radioisotopes at Oak Ridge National Laboratory (2008).

The acetyl discovery used coal rather than petroleum as a raw material in the production of acetyl chemicals, which aid in the making of detergents, pharmaceuticals, animal feed and agriculture products, among others.

Radioactive isotopes are routinely used in medicine to detect, diagnose and treat diseases such as cancer, Parkinson's, and hyperthyroidism.



Murray Raney

TO CELEBRATE, THE UTC DEPARTMENT OF CHEMISTRY HOSTED A COMMEMORATIVE EVENT. A PLAQUE HONORING RANEY WAS UNVEILED AT THE CEREMONY.



FACULTY PROFILE

MEET OUR NEW FACULTY MEMBERS

We welcome Dr. Meredith Barbee to the Department of Chemistry and Physics. Assistant Professor Barbee teaches the organic chemistry sequence, required for all pre-professional students. Her research area is in polymers. Polymer materials are widely used in our society, and Dr. Barbee is interested in using the tools of organic chemistry to improve the behaviors of these materials. Her research focuses specifically on the relationship between mechanical stress and chemical bonding and the design of polymer

POLYMER MATERIALS ARE WIDELY USED IN OUR SOCIETY, AND DR. BARBEE IS INTERESTED IN USING THE TOOLS OF ORGANIC CHEMISTRY TO IMPROVE THE BEHAVIORS OF THESE MATERIALS.

nanoparticles and networks. Dr. Barbee obtained her B.S. from Meredith College, a Ph.D. from Duke University, and recently completed her post-doctoral studies at the University of North Carolina at Chapel Hill. Throughout her professional preparation, she has mentored undergraduates in research and in the laboratory and published several papers with undergraduate co-authors. In summer 2022, she participated in our department's Undergraduate Research Program by

conducting research with three current UTC students and looks forward to continuing her research and teaching in the coming years. Her hobbies include hiking, camping, kayaking, and exploring her new home here in Chattanooga.



Dr. Benjamin Stein joins the Department of Chemistry and Physics as one of our biochemistry faculty. Assistant Professor Stein teaches introductory and advanced biochemistry courses, as well as some organic chemistry laboratories. His research

DR. STEIN'S RESEARCH FOCUSES ON SEVERAL SYSTEMS THAT REGULATE OXYGEN RESPONSE AND MEMBRANE INTEGRITY IN THE MODEL BACTERIUM CAULOBACTER CRESCENTUS.

group investigates protein systems that allow bacteria to sense and respond to their changing environments. More specifically, Dr. Stein's research focuses on several systems that regulate oxygen response and membrane integrity in the model bacterium *Caulobacter crescentus*. Dr. Stein obtained his B.S. from Brown University, a Ph.D. from MIT, and just completed post-doctoral studies at Michigan State University. Having mentored undergraduates at several institutions, he

is extremely excited to work with UTC undergraduates. During summer 2022, he mentored four current undergraduates as part of our department's Undergraduate Research Program. Outside of teaching and research, Dr. Stein enjoys reading, cooking, and exploring the amazing hiking trails surrounding Chattanooga.



We also are proud to announce that Dr. James Patton has now been hired as a lecturer in the Department of Chemistry and Physics. He has been teaching General Chemistry and Analytical Chemistry for us for four years in a visiting position. Dr. Patton's B.S. is from the University of Pittsburgh. He earned both an M.S. and Ph.D. from the University of Tennessee Knoxville. As a graduate student, he patented a method for creating a hydrogen gas detector that received an R&D 100 Award in 2011. Prior to coming to UTC, he taught at Eastern Kentucky University and at Berea College in Kentucky. When he's not teaching chemistry, he enjoys rock climbing and hiking, playing trivia (with a focus on sports and classic rock), and taking care of his cats and his yard.

AS A GRADUATE STUDENT, DR. PATTON PATENTED A METHOD FOR CREATING A HYDROGEN GAS DETECTOR THAT RECEIVED AN R&D 100 AWARD IN 2011.

From top down: Meredith Barbee, Ben Stein, Jim Patton

FACULTY NEWS

JISOOK KIM NAMED GROSS PROFESSOR

In 1997, alumni and friends of Dr. Benjamin H. Gross established an endowed fund with the University of Chattanooga Foundation. The purpose of the fund was to create a professorship to honor Dr. Gross. He was a student of the late Dr. Irvine W. Grote, whose name graces our building, and was hand-picked by Irvine to succeed him as Department Head. Ben was a faculty member at UTC from 1964 to 1999, a Guerry Professor, and Head of the Department of Chemistry from 1964 to 1990.

Dr. Douglas Kutz was appointed the first Gross Professor (1997-2014). Dr. Manuel Santiago held the Gross Professorship from 2014-2020. On Aug. 8, 2021, we appointed the next Gross Professor, Dr. Jisook Kim.

Dr. Kim has been described by her colleagues as a model teacher-scholar, which we value as a predominantly undergraduate institution. Dr. Kim has been a faculty member at UTC since 2007, and was promoted to full professor in 2018.

Her expertise is in the area of bio-organic chemistry, and so she teaches both the biochemistry and organic chemistry curricula. Dr. Kim

consistently receives outstanding course learning evaluations and her students are inspired by her work ethic and unparalleled enthusiasm for teaching.

In terms of scholarship, Dr. Kim has published 14 peer-reviewed manuscripts, including one chapter in *Quinone: Occurrence, Medicinal Uses and Physiological Importance*. Over her fourteen years at UTC, Dr. Kim has mentored 23 undergraduate research students, including six honors theses. Eleven of Dr. Kim's students have been co-authors on her papers.

Dr. Kim was the faculty advisor for the Chemistry Club until 2017. During that time, the club expanded in membership, organized group tutoring, and developed regular outreach at the Creative Discovery Museum. Dr. Kim is the alumni coordinator for the chemistry program, collecting career information

from our graduating students each year. During the pandemic, she offered Korean lessons to UTC students through Zoom. Jisook is a key member of the department's "STEAM (science, technology, engineering, arts, and mathematics) funnel" initiative to broaden and deepen participation in the sciences through her outreach activities with elementary-age children in the area.

OVER HER FOURTEEN YEARS AT UTC, DR. KIM HAS MENTORED 23 UNDERGRADUATE RESEARCH STUDENTS, INCLUDING 6 HONORS THESES. ELEVEN OF DR. KIM'S STUDENTS HAVE BEEN CO-AUTHORS ON HER PAPERS.



Jisook Kim, PhD



Helen and Ben Gross with Jisook Kim at the investiture ceremony

DEPARTMENT NEWS

CLARENCE T. JONES OBSERVATORY

By Shawn Ryan



In 2003, Mars and Earth were only about 34.8 million miles apart. Usually, they average about 140 million miles of separation.

It was the closest the two planets will get to each other until 2287, NASA says, so it was a big deal around the world. Including Chattanooga.

At the Clarence T. Jones Observatory on Brainerd Road, the line to get in and look at Mars through the 20-inch lens of its telescope was about two hours long, says Jack Pitkin, director of the observatory. Adults turned into excited kids, and excited kids were just plain excited. "A chance to see the icecaps of Mars," he says.

Seeing not just Mars and its icecaps but the rest of the solar system, as well as light-years beyond, all are possible at the observatory, now owned and operated by the University of Tennessee at Chattanooga. It was built in 1938 by the Barnard Astronomical Society of Chattanooga with a \$50,000 grant (about \$904,000 in 2021 dollars) from the federal Public Works Association. Clarence T. Jones was the society's first president.

"Think of it in operation and think of it in the eyes of a seven- or eight-year-old and see the moon. The Orion nebula. The rings of Saturn. The moons of Jupiter," Pitkin says, excitement in his voice. "It's one of the most profoundly educational

things you can do as a kid, and we're the ones that do it."

The observatory was added to the National Register of Historic Places in 2009.

Open in 1953, a planetarium inside the observatory projects the night sky above Chattanooga onto its 20-foot-tall, rounded dome, pinpointing which stars are where in relation to landmarks such as Lookout Mountain and Cameron Hill.

Astronomy lessons are offered at the observatory. On most Sunday nights from October through April, it's open to the public for free visits to take in a planetarium show and look through the telescope.

In 1944, the University took over the observatory's operation. It is now part of the UTC Astronomy program in the Department of Chemistry and Physics. Student workers and community volunteers run events.

While UTC owns and operates the observatory, its arms spread far out from the campus, Pitkin says.

"This is for all of Chattanooga."

STUDENT PROFILE CHRISTINE RUKEYSER

Rising senior chemistry major Christine Rukeyser was at the University of Manitoba-Winnipeg this summer for a research position through Fulbright Canada. She is one of three UTC students to be accepted into the Fulbright Canada Mitacs Globalink Research Internship. She is working with Johan van Lierop on a project titled “Rare-earth free ultra-high magnetic field nanocomposites.” She will be synthesizing and characterizing magnetic nanoparticles.

“Synthetic chemistry is starting from point A and performing a series of reactions to get a desired product,” said Rukeyser, a native of Knoxville.

“I enjoy being in the lab combining reagents, performing reactions, and obtaining desired products.”

Last summer and during winter break, Rukeyser—whose career plans include going to medical school and combining her research prowess with patient care—was a research and development intern at Colonial Chemical in South Pittsburg, Tennessee.

“I did various amounts of chemical testing, and really liked organic synthesis chemistry. I knew I liked that before doing the internship, but seeing what I’ve learned being applied in industry was interesting,” she said.

At UTC, Christine is an Innovation in Honors student. She plans to conduct honors thesis research this year with new faculty member, Dr. Barbee. She has also served the department as a teaching assistant for Organic Chemistry 2 and as a Peer-Led Team Learning (PLTL) Leader for General Chemistry 2. In her spare time, she plays club tennis.



“I ENJOY BEING IN THE LAB COMBINING REAGENTS, PERFORMING REACTIONS, AND OBTAINING DESIRED PRODUCTS.”

Diane Madeksho graduated in December 2021. She majored in biochemistry and plans to pursue biochemistry research in graduate school at the University of Texas at Austin. After graduate school, Diane hopes to work in biotechnology or pharmaceuticals.

As she reflects on the past four years at UTC, she remembers loving Chattanooga. “I think it is so pretty and fun. You can never run out of things to do here,” she shared in a recent interview. “Starting research was when I felt most involved in the department and in college.” Diane conducted undergraduate research in biochemistry with Professor Jisook Kim and participated in the department’s Undergraduate Research Program in 2021.

“I studied the toxicology of quinones, which are polycyclic aromatic hydrocarbons. They are formed as byproducts of a lot of industrial processes and are found everywhere from cosmetics and medicines to poison ivy and dyes,” says Madeksho. “We are trying to figure out how they can modify proteins because many diseases are linked to protein misfolding.”

For her research efforts in organic chemistry and overall outstanding academic performance, Diane was awarded this year’s ACS Division of Organic Chemistry Award. This award is presented to one graduating senior each year. The department congratulates Diane and all of the class of 2022 on their accomplishments. We look forward to hearing of your future success!

STUDENT PROFILE DIANE MADEKSHO



“STARTING RESEARCH WAS WHEN I FELT MOST INVOLVED IN THE DEPARTMENT AND IN COLLEGE.”

ALUMNI PROFILE ERIKA MILCZEK

By Chuck Wasserstrom

Erika Milczek laughed when she was asked if—during her days as a University of Tennessee at Chattanooga undergraduate—she could have imagined one day running her own company.

“No, I thought I was going to be a professor and teach. I would have loved that,” said Milczek, who graduated from UTC in 2005 with a bachelor’s degree in chemistry. “But I’m glad I got on this path. I’ve had a wonderful time and get to work with phenomenal colleagues.”

Milczek, the founder and CEO of Curie Co, a life science company that engineers enzymes to replace banned chemicals with sustainable ingredients in everyday consumer goods, was honored with the 2021 Outstanding Young Alumni Award at the UTC Office of Development and Alumni Affairs’ Legends and Leaders Award dinner on April 7, 2022.

The award is one of the most prestigious honors presented to a UTC graduate, recognizing alumni 40

years of age or younger who have made significant contributions to their community.

Milczek said Curie Co and other industrial biotech companies are researching new technologies and modalities to create clean, sustainable components that improve product shelflife.

Milczek came to UTC after attending Fayette Academy in Somerville, Tennessee, a rural community near Memphis. Although she initially envisioned a pre-med path when she started college, chemistry won her over during her time at the University.

“I had the opportunity to do summer undergraduate research for two years and several semesters during the academic year and I absolutely fell in love with organic chemistry,” she said. “I had a great time being in the lab and doing research, and I had a wonderful mentor and advisor in Dr. Kyle Knight.” Knight, who taught organic chemistry at UTC for 23 years, passed away in 2020.

“The fact that they still think about me and nominated me is both an honor and humbling.”



Erika Milczek (Chem '05)

ALUMNI PROFILES

CHRIS CUNNINGHAM

Chris Cunningham, '18, was featured in a recent employee spotlight for Branch Technology. Chris is a Chattanooga native who majored in physics at UTC. He was first introduced to 3D printing at an astrophysics seminar while studying at UTC, which sparked his interest in a career in computational engineering.

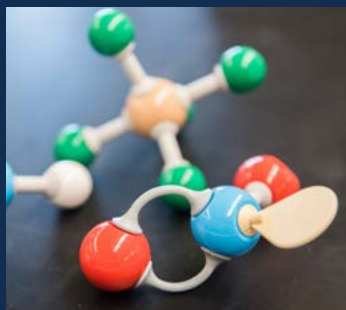
Branch Technology focuses on additive manufacturing, prefabrication, and digital technology at construction scale. They are headquartered in Chattanooga. Chris is a production technician who implements cellular fabrication free-form printing using 6-axis Kuka 3D printing robots. He and fellow UTC physics alum Zak Barnes gave our summer URP students a tour of Branch Technologies recently.

Outside of work, Chris enjoys taking camping trips with his friends, hiking with his fiancée, studying astronomy, and playing video games. Chris also enjoys going to local events to teach people about physics and astronomy.

CHRIS ALSO ENJOYS GOING TO LOCAL EVENTS TO TEACH PEOPLE ABOUT PHYSICS AND ASTRONOMY.

REYMON DE GUZMAN

Reymon de Guzman, '13, currently lives in Wichita, KS. He earned his B.S. in chemistry. In the seven years since graduation, he has been working for Koch Industries. He started out as a laboratory technician at Invista for two years, which is the Nylon business of Koch Industries. He transitioned to an analytical chemist role at Flint Hills Resources, which is the petroleum chemicals business of Koch Industries, for the last five years. In addition to being a full-time analytical chemist, he is also a part-time student, pursuing a master's degree in chemistry at Ohio University.



IN ADDITION TO BEING A FULL-TIME ANALYTICAL CHEMIST, REYMON IS ALSO A PART-TIME STUDENT PURSUING A MASTER'S DEGREE IN CHEMISTRY AT OHIO UNIVERSITY.

JAY NGUYEN

Jay Nguyen, '17, earned his degree in biochemistry. He graduated from Lincoln Memorial University-Debusk College of Osteopathic Medicine in May 2022. He is currently a dermatology resident in Orlando, Florida. One of his favorite memories from his time at UTC was working as lab partners with his best friend Austin Gould in Dr. Han Park's Physical Chemistry II Laboratory class. His advice to current students is to pursue undergraduate research.



ONE OF JAY'S FAVORITE MEMORIES FROM HIS TIME AT UTC WAS WORKING AS LAB PARTNERS WITH HIS BEST FRIEND.

MYRANDA DEMAILLY

Myranda DeMaily, '17, earned their degree in biochemistry. They have worked in chemical manufacturing for five years. Upon graduation, they managed a quality control lab in Chattanooga where they produced colorformer, an active ingredient in thermal paper. Myranda moved to Milwaukee, WI to work with Thermo Fisher producing modified nucleotides for COVID vaccines. Myranda recently started a new position in Milwaukee as a regional applications engineer for Hanna Instruments performing service on automatic titrators. "As someone who felt they had to go to medical school to be successful, I think it is so important to realize that there are tons of career opportunities with a bachelor's degree," Myranda says. They are thankful for the research experiences they had at UTC and for mentorship from Dr. Gretchen Potts, which helped them become a skilled chemist.

"I THINK IT IS SO IMPORTANT TO REALIZE THAT THERE ARE TONS OF CAREER OPPORTUNITIES WITH A BACHELOR'S DEGREE," MYRANDA SAYS.

SHARE YOUR ALUMNI NEWS

Please send your news to share on our social media or in the next edition of *Mocs Matter*.
utc.edu/Chem-Phys-Alum



IN MEMORIAM

RICHARD JENSEN

By Damarest Jensen



Rick Jensen with some of the products he helped develop.

Richard Jensen (Chem '71) passed away in August 2020, after a successful career in the chemical industry. On academic scholarship from Hixson High School, Rick began at UTC in the fall of 1967, as an engineering major. He felt privileged to be a driver for Dr. Irvine Grote. His conversations with this brilliant professor while driving him home to Missionary Ridge were inspiring. Encouraged also by Dr. Lewis Fletcher's strong foundational teaching in freshman chemistry, Rick changed his major to chemistry and math. Dr. Robert McNeely, Dr. Ben Gross, and Dr. Frank Boyer challenged Rick to delve into the structure and complexity of organic and physical chemistry, instrumental analysis, and the quantitative analysis of chemistry. While at UTC, Rick was employed as a chemistry lab assistant and worked as a departmental chemistry tutor in the newly built Grote Hall in 1970. He graded papers for the math department while writing his honor's thesis "Numerical Methods to Find the Roots of a Polynomial". During his time at UTC, Rick served as vice-president of Gamma Sigma Epsilon, the national honorary fraternity to promote enthusiasm for the study of chemistry. He also was the vice-president of the math society, Pi Mu Epsilon, and played trumpet in the first band at the University.

He was elected to the national honor society Phi Eta Sigma. Before his senior year, Rick married his high school sweetheart, Damarest Chapman (Math '72). In 1971, seniors who began at UC could choose a UC or UTC diploma. He graduated Magna Cum Laude with a Bachelor of Arts degree (4.0 in chemistry) in one of the first graduating classes from UTC.

UTC placed Rick in his first chemistry job as the quality control director for Colox Corporation in Ringgold, GA. He developed a product called D-Stat, worked with latex, and got his first patent. In 1976, Rick became supervisor of dyestuff development, spinning lubricants, and process chemicals for Rossville Yarns and Mills. He developed expertise in the textile industry from the cotton bale to the finished product.

In 1981, Rick became Technical Director at Dooley Chemicals, LLC in Chattanooga. Later he served as vice president and CEO. Rick Wilson, CEO of Syntha Group and President of

Dooley, said: "Rick was the guy that made my life easier. He loved this company, so he put his heart and soul into making it successful. He cared deeply about the people who worked here, the facility itself, and the products we produced. Rick developed products for the dyeing and finishing of apparel fabrics, hosiery, carpets, rugs, seat belts, and industrial fabrics. He also developed process aids for urethane foam, asphalt, industrial cleaning aids, environmental remediation, and agricultural use products.

Over the years, he created thousands of products by custom formulating exactly what each customer needed."

At Russell Athletics, Dooley's largest customer, Rick helped eliminate defects and improved the quality of athletic uniforms and fleece. Rick traveled with salesmen to service hundreds of other factories in the southeastern US including Champion Active Wear, Cross Creek, Fruit of the Loom, and Tempurpedic/Sealy. For Natick Soldier Systems, Rick formulated a coating for parachute static lines. He improved military glove fabric and fire retardancy for uniforms. Nicknamed

"Einstein," Rick improved and made processes better for 49 years.

With the 1993 signing of NAFTA, many domestic customers relocated overseas. The marketing director who traveled often with Rick said: "Rick Jensen's faith in God went with him wherever he went. It was evident by how he carried himself and his dealings with people." Even if the trouble was the fault of a competitor, Rick worked to resolve the problem.

Rick kept in touch by calling his family every day and delighted in spending time at home with his seven grandchildren. He built a home in Hixson where five generations have lived, felt protected, and enjoyed his fun-loving nature. Rick tutored science, attended games and concerts, taught his grandsons to play golf, and worshipped with his family. Rick also assisted his daughter, Cherith (UTC '95) with procedures for her business.

Active in the American Association of Textile Chemists and Colorists, Rick served on committees, moderated, and spoke at symposia. He wrote manuals specifically for customers. He signed permission for many businesses to patent his products. Rick was instrumental in the beginning of RWM, a sister company to Dooley.

Rick also kept in touch with the chemistry professors at UTC, especially Dr. Ben Gross. Rick made several trips back to campus to judge in the regional science fairs and to speak in seminars. Rick was invited back when his son, David, was honored as a Grote Scholar. The faculty was pleased to have educated

both father and son. Dr. Grote taught Ben Gross, who taught Rick and David Jensen (Chem '99).

In 2015, Rick retired from full-time work at Dooley. He continued to advise and formulate products by establishing his own consulting company, Upward Chemical Solutions. In June 2020, children and grandchildren

gathered at home to celebrate the 50th wedding anniversary of Rick and Damarest. A few weeks later, Rick was up early to write the procedures for making and applying his formula to kill SARS-CoV-2 on a mask for a customer in Switzerland. Unfortunately, a massive heart attack interrupted his work that day. Richard Jensen, age 71, took his final trip and left this story to be told.

His colleagues at Syntha Group have established the Richard Jensen Endowed Undergraduate Research in Chemistry Scholarship.

"OVER THE YEARS, HE CREATED THOUSANDS OF PRODUCTS BY CUSTOM FORMULATING EXACTLY WHAT EACH CUSTOMER NEEDED."

-Rick Wilson, CEO of Syntha Group and President of Dooley

C MOCS GIVE DAY

OCTOBER 4, 2022

UPDATE!

Last year was the second annual Mocs Give Day. The generosity of our donors was amazing! We raised \$5,285. The funds were used to buy supplies for chemistry teaching, support research in water quality, and assist students with graduate

school application expenses. This year Mocs Give Day will be on Oct. 4, 2022.

MocsGiveDay.utc.edu

GIVE TODAY!



SUMMER RESEARCH

This summer marks the 36th annual Undergraduate Research Program. Last year, we were able to return to campus with 15 students and 13 faculty mentors. During the school year, we had a record number of mentored research projects, with 57 students earning credit for research and two students completing departmental

honors theses.

With funds from the Grote Endowment, students also traveled to present their research at professional conferences, including SERMACS, SESAPS, and national ACS. Please check our website for the latest list of student and faculty publications and presentations.

NATALI MAJORAS




(faculty mentor: Dr. Titus Albu)
"Theoretical Studies of Benzoquinone Reactivity in Acidic and Basic Environments"

EMILY STUMBO

(faculty mentor: Dr. Jared Pienkos)
"Synthesis and Characterization of Organometallic Complexes for Biological Imaging"

LAB NOTES

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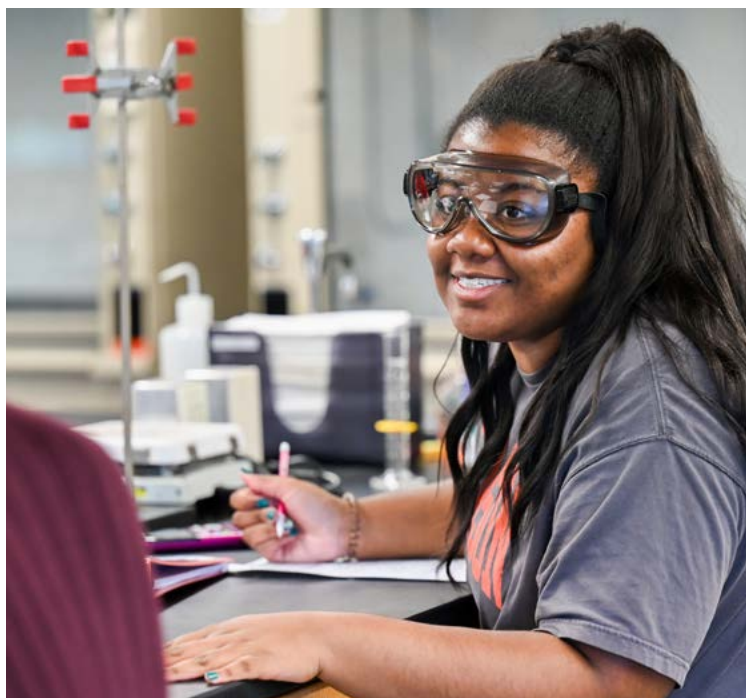
Alumni groups on LinkedIn:

-  UTC Chemistry Alumni group
-  UTC Physics Alumni group

YOU'RE INVITED!

to the annual Undergraduate
Research Program (URP) poster
session followed by
an alumni reception.

Friday, Oct. 7, 2022
3 – 5:30 p.m.
403 Grote Hall



James Patton's general chemistry class this past summer.