



**The Jess and Mildred Fisher
College of Science and Mathematics**



**33rd Annual
FCSM HONORS
CONVOCATION**

Celebrating student accomplishments for 2022-2023
Sunday, April 30th, at 2:00PM University Union Ballrooms

The Jess and Mildred Fisher College of Science and Mathematics

FCSM Honors Convocation

A Letter from the Interim Dean

Dear Fisher College Students, Families, Faculty, Staff, and Friends:

Welcome to the 33rd Annual FCSM Honors Convocation! We are celebrating the outstanding accomplishments of FCSM students during the 2022-2023 academic year. This year was perhaps the first post-pandemic year where instruction and interactions were closer to pre-pandemic conditions and all in the college, from students to faculty and staff, welcomed the return to normal.

I especially want to applaud the faculty and staff of the Fisher College for their ongoing professionalism, hard work, and commitment to our students and the overall mission of Towson University. As we continue our long tradition of the Honors Convocation, it is important to recognize the mentorship and support that paves the way for the amazing accomplishments of our students. Truly, and as you will see, our students continue to excel in the classroom, the field, and in the laboratory and seeing their success is our highest honor.

To those who will be graduating in a few weeks, congratulations and best wishes! To those who will return to campus next fall to continue their studies, I hope you have an enjoyable and productive summer and we look forward to seeing you again soon. I know I speak for everyone in the College in wishing you all a great summer.

Sincerely,

Christopher J. Salice, Ph.D.
Interim Dean

Towson University

Mission

Towson University fosters intellectual inquiry and critical thinking preparing graduates who will serve as effective, ethical leaders and engaged citizens. Through a foundation in the liberal arts, an emphasis on rigorous academic standards, and the creation of small learning environments, we are committed to providing a collaborative, interdisciplinary and inter-professional atmosphere, excellence in teaching, leadership development, civic engagement, and applied and sponsored research opportunities at the undergraduate and graduate levels. Our graduates leave Towson University with the vision, creativity and adaptability to craft solutions that enrich the culture, society, economy, and environment of Maryland, the region, and beyond.

Dr. Melanie L. Perreault, Interim President

Fisher College of Science and Mathematics

**Inspiring Student Exploration in
Science and Mathematics for the 21st Century**

Mission

Through rigorous and high-quality undergraduate programs in a wide variety of scientific, computing and mathematical disciplines and graduate programs in research-based, practice-based, applied and interdisciplinary fields, FCSM prepares its students to live and work productively in a scientific and technological world and to pursue learning throughout their lives. Faculty members engage both their undergraduate and graduate students through interactive teaching, advising, basic and applied research, and collaborative activities internally and externally. They form partnerships both to serve the metropolitan community as well as to meet regional, national and international needs. The result is dedicated, innovative, flexible, and highly prepared individuals who excel in graduate school, professional school, and careers in industry, government and teaching.

**The Jess and Mildred Fisher
College of Science and Mathematics**

AGENDA

Opening

Dr. Christopher Salice, Interim Dean

Introduction of Student Speaker

Dr. Vonnie D. C. Shields, Associate Dean

Undergraduate Student Speaker

Maliya Baxter

Departmental Awards & Scholarships

Dr. Laura Gough, Department of Biological Sciences

Dr. Ryan Casey, Department of Chemistry

Dr. Michael McGuire, Department of Computer & Information Sciences

Dr. Michael O'Leary, Department of Mathematics

Dr. David Schaefer, Department of Physics, Astronomy & Geosciences

Program Awards & Scholarships

Ms. Erinn Tefel, Towson UTeach

Dr. Sharlene Roberson, Towson Opportunities in STEM

Dr. Joel Moore, Environmental Science and Studies Program

Ms. Kristin Pinkowski, Hill-Lopes Program

Scholarships, Research & Travel Awards

Dr. Vonnie D. C. Shields

Closing

Dr. Christopher Salice

Reception to follow

DEPARTMENT OF BIOLOGICAL SCIENCES

Dr. Laura Gough, Chairperson

Betty Kennedy Dale Scholarship

Annie Keele

Biology Alumni Scholarship

Temilade Adebayo

Kaija Harlow

Carl Henrikson Memorial Award

Angelique Sumilang

Compton N. Crook Award

Glory Omodia

Dr. Ruth Stocking Lynch Memorial Scholarship

Kaija Harlow

James Edward Ewig Memorial Scholarship for Academic Achievement by a Senior

Morgan Franz

James Moniodis Scholarship for Returning Major

Santosh Regmi

John David Horst Memorial Award for Outstanding Student Research Project

Kaija Harlow

Lois D. Odell Scholarship for Outstanding Transfer Student

Santosh Regmi

Samantha Wudtke

Lois D. Odell Award for Outstanding Biology Senior

Britney Erickson

Mary Scarbrough-Carr Scholarship

Annie Keele

Oreoluwa Olajuyigbe

Wendy M. & Jeffrey C. Miller, D.D.S. Scholarship

Kaija Harlow

Wilfred B. Hathaway Award for Outstanding Biology Graduate Student

Cynthia Lascaraz Espana

DEPARTMENT OF CHEMISTRY

Dr. Ryan Casey, Chairperson

Alan and Eileen Wingrove Endowment Scholarship for Chemistry Scholars

Desmond Smith
Taylor Shafirovich

American Chemical Society Division of Analytical Chemistry Award

Tionna Harris

American Chemical Society Division of Organic Chemistry Award

Olivia Sipes

CRC Press Freshman Chemistry Achievement Award

Noah Jones

Excellence in Inorganic Chemistry Award

Samantha Topka

Floyd Blankenship Memorial Award

Alexandra Reifer

Frank B. Milio Book Award

Emily Brown
Scott Bernota

Gibbs Award for Excellence in Chemistry

Maria Webster

Greater Washington Institute of Chemists Student Award

Desmond Smith

Linda Sweeting Endowment for Undergraduate Research in Science Award

Kathryn Nunez
William Schmidt

Maryland Section of the American Chemical Society Achievement in Chemistry Award

Raphael Zeldin

Ronald and Linda Raspet Undergraduate Research Fellowship

Hunter Brandenburg
Tionna Harris

Student Affiliates of the American Chemical Society Scholarship

Desmond Smith
Taylor Shafirovich

DEPARTMENT OF COMPUTER & INFORMATION SCIENCES

Dr. Michael McGuire, Chairperson

The AOC (Aberdeen Proving Ground Susquehanna Association of Old Crows Chapter) Scholarship

Christopher Wagner
Christine Adams
Justin Snyder
Katya Doersam
Mackenzie Andrews
Orlando Onofre
Skylar Gayhart

Applied Information Sciences Scholarship

Nathaniel Nussbaumer

CyberCorps® Scholarship

Adedoyin Adegbuyi
Antonise Smith
Brian Chen
Graeme Dickerson-Southworth

CySP Scholarship-Department of Defense Cyber Scholarship Program

Alexander Cochrane
Christopher Wagner
Gabriella Garrett
Milan Black
Ryan Sosnoski
Sean McGuire
Skylar Gayhart
Turhan Kimbrough

Doris K. Lidtke Excellence in Service Award

Moshe Goldstein

Dr. Harry Zhou CIS Graduate Scholarship

Cheng Qian

James W. Smith Scholarship

Akeem Laurence

Mary Hudson Scarborough Award for Excellence in Computer Science (IS)

Mackenzie Andrews

Mary Hudson Scarborough Award for Excellence in Computer Science (CS)

Carter Montgomery

Mary Hudson Scarborough Award for Excellence in Computer Science (IT)

Rabie Salous

Mid-Atlantic CIO Forum Scholarship

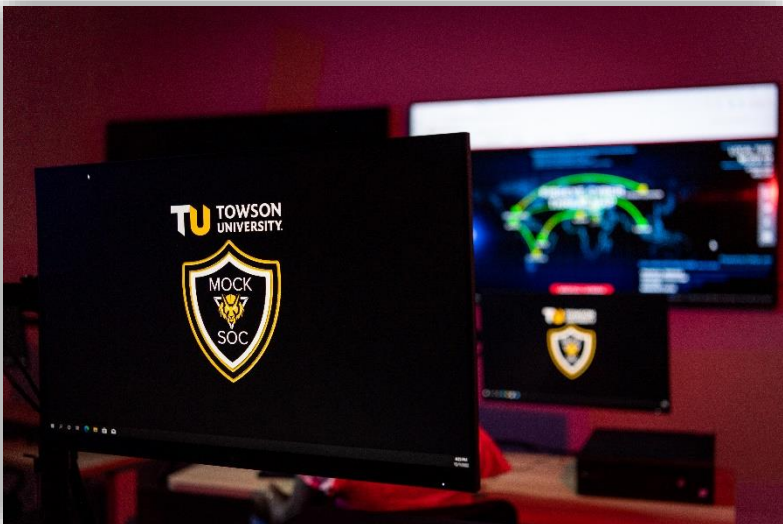
Anthony Saporito
Brandon Agugoesi
Priscilla Nornoo
Ryan Gilbert
Ryan Gordon
Taylor Webb
Toyin Olujumu
William Freeman
Zobaria Ashraf

Wendy and Larry Letow Endowed Scholarship

Tyreik Shaw

Porter Family Scholarship in Mathematics and Computer Science

Kapil Regmi
Rebecca Cooper



DEPARTMENT OF MATHEMATICS

Dr. Michael O'Leary, Chairperson

Ann L. Wagner Scholarship in Mathematics

Spencer Herrin

Eunice Bowers Schmied and Otto Karl Schmied Memorial Scholarship in Mathematics

Adedoyin Adegbuyi

Erin Stales

Joyce C. Neubert Award in Mathematics

Russell Scherr

Mary Hudson Scarborough Award for Excellence in Mathematics

Avery Schweitzer

James Della-Giustina

Mary Hudson Scarborough Award for Excellence in Middle School Math Education in Secondary Mathematics Education

Amy Augustino

Mary Hudson Scarborough Award for Excellence in Secondary Mathematics Education

Kaylee Fillers

Marie D. Rutenbergs Scholarship in Mathematics

William Hunter

Mildred T. Becker Scholarship

Matthew Brubaker

Nicholas Ryder-Bullock

Jay P. Calkins

Reza Sarhangi Scholarship

Kira Lutz

DEPARTMENT OF PHYSICS, ASTRONOMY AND
GEOSCIENCES

Dr. David Schaefer, Chairperson

Eddie Loh Undergraduate Physics Scholarship

Daniel Roland
Shannon Markward

Eddie Loh Graduate Physics Scholarship

Ahmed Elrashidy
Graham Hyde
Logan Kimball
Ryan Paxson

Edward I. Rubendall Physics Achievement Award for Outstanding Juniors

Shannon Markward

Edward I. Rubendall Physics Achievement Award for Outstanding Seniors

Daniel Roland

Geosciences Achievement Award

Abram Jeremenko
Erika Heymann
Simon Buchholz

Maryland Space Grant Scholarship

Akeem Laurence
Britney Whittington
Scott Bernota

Mineralogical Society of America Undergraduate Prize

Abram Jeremenko

William F. Pelham Award for Geoscience

Erika Heymann

William F. Pelham Award for Physics

Madison Previti

TOWSON UTEACH AWARDS

Dr. Linda Cooper, Program Director

Dollenberg Family Endowed Scholarship

Jean Ciscell

Dr. Carol L. and Robert E. Daihl Endowed Scholarship

Haedyn Kressley

Fellicia Demetrius

Dr. George E. Hohl '55 & Anne S. Hohl Endowed Scholarship for Towson UTeach

Nicholas Ryder-Bullock

The Kahlert Foundation Scholarship for Towson UTeach

Abigail Geiman

Brian Topper

Catherine Smith

Christina Freeman

Colin Crawford

David Bailer

Emily Stricker

Fellicia Demetrius

Haedyn Kressley

Heidi Bronson

James Tran

Jean Ciscell

John Thomas

Justin Fluharty

Malachi Wright

Mary Grace Lucas

Mary Meloni

Matthew Gorschboth

Natalie Flanders

Rachel Truitt

Ryan Neil

Ryleigh Clark

Spencer Herrin

Yardley Dominguez Lopez

R. Elizabeth Remsberg '27 Endowed Scholarship for Towson UTeach

Matthew Gorschboth

Rebecca Cooper

Towson UTeach General Endowment

Rebecca Cooper

ENVIROMENTAL SCIENCE & STUDIES

Dr. Joel Moore, Interim Program Director

The Francis Borrelli Johnson Endowed Environmental Scholarship

Logan Tolley

Emily Johnson

TOWSON OPPORTUNITIES IN STEM

Dr. Sharlene Roberson, Program Director

TOPS Program Scholarship

Ajita Baral

Alaina Hetrick

Asia Trogdon

Bin Che

Camren Watkins

Deja Johnson

Ethan Williams

Ezekiel Morris

Hailey Martin

Mark Ojo

Muswe Pembamoto

Olamide Abegunde

Sunmisola Balogun

Suril Waghmare

Tamara Lawson



HILL-LOPES SCHOLARSHIPS

Ms. Kristin Pinkowski, Program Coordinator

Delta Cohort (1st year in the Program)

Aaliyah St. Jules
Dajaha Kenney
Darrel Abang
Emily Brown
Jaelyn McCracken
Jazmin Sharp
Kaitlin Conway
Kali Ferguson
Karollmae Tan
Katherine Tan
Maya Cowling
Phoebe Calkins
Rohanna Bowers
Urja Desai

Gamma Cohort (2nd year in the Program)

Annie Keele
Britney Whittington
Ebunoluwa Adelola
Glory Omodia
Grace Wilson
Hailey Bartolomeo
Maliya Baxter
Morgan Hawkins
Sumra Chaudhry
Taylor Pettaway

Beta Cohort (3rd year in the Program)

Brianna Hutchins
Caroline Etherton
Jordan Brooks
Kelsey Evans
Maya Larbi
Olivia Sager
Renee Ofori
Samantha Frias
Skylar Gayhart
Tionna Harris

FCSM COLLEGE-LEVEL AWARDS

Dr. Vonnie D. C. Shields, Associate Dean

BGE Scholarship

Aaliyah Lucius
Bereket Segal
Bisola Adeoye
Kaija Harlow
Tamara Vallejo-Schmidt

FCSM Dean's Scholarship

Priscilla Nornoo
Rohanna Bowers

Jess Fisher, Class of 1934, College of Science and Mathematics Scholarship in Memory of Cecilia Fisher Rudman

Alexandra Reifer
Angelique Sumilang
Brett Weeks
Grace Larocque
Hannah Little
Jennafer Buckshaw
Kali Ferguson
Leonard Johnson
Phuong Dinh Nguyen

Jess Fisher, Class of 1934, Pre-engineering Scholarship in Memory of Robert M. Fisher

Clarence Powell
Colin Choudhary
Mackenzie Dupre
Taylor Pettaway

Michele M. Cooper, M.D. Scholarship

Kaitlyn Gouty
Sevana Simms

L. Melvin Roberts Scholarship

Britney Whittington

Willard Hackerman Scholarship

Amina Daniels
Ashley Mark
Asia Trogon
Christopher Solano
Gianna Saunders
Jazmin Sharp
Kaitlynn Beahn

Kemetrias Snowden
Kendall Muse
Mekalae Nish
Michael Aladejebi
Muswe Pembamoto
Nour Arnaout
Patience Odeh
Theresa Abalum
Windejia Andrews

John B. '71 and Sharon Hafner Yingling '71 Scholarship
Kaija Harlow



UNDERGRADUATE RESEARCH AWARDS

Undergraduate Research Grants in 2022–2023

Adrian Campbell

“Electronic Transport Properties of the Superconducting TiN-based Multilayers”
Mentor: Dr. Vera Smolyaninova (Physics, Astronomy & Geosciences)

Alexandra Amos

“Investigating Seasonal and Yearly Variations in the Intestinal Microbiome of African Elephants (*Loxodonta africana*)”
Mentor: Dr. Petra Tsuji

Britney Erickson

“Effects of TcpC’s NADase Activity on Inhibition of Innate Immune Signaling”
Mentor: Dr. Michelle Snyder (Biological Sciences)

Chauncey Liffiton

“Heat shock and λ lonclp genetics altering effects on *Escherichia coli*”
Mentor: Dr. Matthew Hemm (Biological Sciences)

Daryna Soloviova

“Detection of Propagation of Electromagnetic Surface Waves Along the Silicon-Titanium Boundary”
Mentor: Dr. Vera Smolyaninova (Physics, Astronomy & Geosciences)

Desmond Smith

“Synthesis and Characterization of Bicosahedral Au₂₄Co Nanoclusters”
Mentor: Dr. Mary Devadas (Chemistry)

Elizabeth McMillan

“The Influence of Mandible Size on Prey Handling Time ”
Mentor: Dr. Christopher Oufiero (Biological Sciences)

Everette McDuffie

“Electrochemistry Study of Gold-Nanoclusters: Effects on Methylene Blue Dye”
Mentor: Dr. Mary Devadas (Chemistry)

Grace Morris

“Detection and Validation of Short Open Reading Frames in *Escherichia coli*”
Mentor: Dr. Matthew Hemm (Biological Sciences)

Hiba Awan

“Investigating Pgarn2 at Transcription Level Of Septic Mice”
Mentor: Dr. Matthew Hemm (Biological Sciences)

Junela Hunat

“Evaluation of Dematin Expression in Endotoxemic WT and TLR4 KO Mice”
Mentor: Dr. Erin Harberts (Biological Sciences)

Kaija Harlow

“Population Genetics of Northern Map Turtles (*Graptemys geographicala*) in the lower Susquehanna River”

Mentor: Dr. Steve Kimble (Biological Sciences)

Kelsey Evans

“Reactivity of Parabens Towards Free Chlorine”

Mentor: Dr. John Sivey (Chemistry)

Larissa Speaks

“Development of a Test for a Oathogen from the Middle East ”

Mentor: Dr. Kelly Elkins (Chemistry)

Maria Webster

“Using Galvanic Exchange to make Gold based Ferrofluids for Biological Applications”

Mentor: Dr. Mary Devadas (Chemistry)

Marlena Wood

“The Influence of Mandible Size on Prey Handling Time ”

Mentor: Dr. Christopher Oufiero (Biological Sciences)

Mary Sullivan

“Predation in the Orchid Mantis (*Hymenopus coronatus*): Effects of Prey Size on Prey Capture and Diet Determination through eDNA ”

Mentor: Dr. Christopher Oufiero (Biological Sciences)

Matthew Vollmuth

“Synthesis of Fungal Metabolite, Prunomarin A”

Mentor: Dr. Keith Reber (Chemistry)

Nathaniel Christopher

“Search for ENZ Behavior in Fe-B Compounds”

Mentor: Dr. Vera Smolyaninova (Physics, Astronomy & Geosciences)

Olivia Sipes

“Total Synthesis of Cladosporitide A”

Mentor: Dr. Keith Reber (Chemistry)

Phoebe Calkins

“Using a qPCR Array to Determine Pathway Regulation Activated During Septic Shock”

Mentor: Dr. Erin Harberts (Biological Sciences)

Riley Scott

“Gill Morphology of White Perch (*Morone americana*) Exposed to Hypoxia at Three Different Salinities”

Mentor: Dr. Jay Nelson ((Biological Sciences)

Rukhma Butt

“Single Particle Tracing Investigations of the Evolving Network Structure during Cross-linking Poly(thylene glycol)-based Hydrogels”

Mentor: Dr. Khanh-Hoa Tran-Ba (Chemistry)

Samantha Topka

“Bimetallic Supramolecular Bi-icosahedron Au₂₅ Clusters: An Optical and Electrochemical Study” and “Synthesis of Mixed Bi-Icosahedron Nanoclusters with Increased Fluorescence”

Mentor: Dr. Mary Sajini Devdas (Chemistry)

Samantha Walunas

“Investigating the sORFs yjyY, bdm_osmC_2, thrW_ykfl_1, and ynef_yneG_0 as Potential Genes Encoding Small Proteins”

Mentor: Dr. Matthew Hemm (Biological Sciences)

Sampada Shrestha

“Examination of Small Protein Accumulation During Conditions with Decreased Degradation Rate”

Mentor: Dr. Matthew Hemm (Biological Sciences)

Sarah Hamilton

“Model System of Innate Immunity in Planaria Organisms”

Mentors: Dr. Jack Shepard and Dr. Michelle Snyder (Biological Sciences)

Swadha Bhatt

“Characterization of RpfB Riboswitch”

Mentor: Dr. Ana Maria Soto (Chemistry)

Tamara Vallejo-Schmidt

“Comparison of the Effects of Amino Acid Mutations on NADase Activity of Uropathogenic *Escherichia coli* and *Acinetobacter baumannii* TIR Proteins”

Mentor: Dr. Michelle Snyder (Biological Sciences)

Taylor Shafirovich

“SERS Analysis of Organic Compounds in Gunshot Residue Using a Portable Raman Spectrometer”

Mentors: Dr. Mary Devadas and Dr. Ellen Hondrogiannis (Chemistry)

Victoria Akingbehin

“The Effects of TcpCon Model Systems *Dictyostelium discoideum*”

Mentor: Dr. Michelle Snyder (Biological Sciences)

William Schmidt

“Simple Preparation of Primary Amines via Copper Catalysis”

Mentor: Dr. Gus Bakhoda (Chemistry)

Zachary Alexander

“Investigating the Relationship Between NADase and Ubiquitin Ligase Activity in TcpC”

Mentor: Dr. Michelle Snyder (Biological Sciences)

Zara Freeland

“Water Soluble Magic Numbered Gold Nanoclusters for Biological Applications”

Mentor: Dr. Mary Devadas (Chemistry)

UNDERGRADUATE TRAVEL AWARDS

Undergraduate Research Grants in 2022–2023

Britney Erickson

Annual Biomedical Research Conference for Minoritized Scientists

Anaheim, California, November 8–12, 2022

Presentation: “NADase Function of TcpC May Induce Suppression of Innate Immune Response”

Mentor: Dr. Michelle Snyder (Biological Sciences)

Jean Ciscell

Mathematical Association of America Math Fest 2022

Philadelphia, Pennsylvania, August 3–5, 2022

Presentation: “STEM Model-Eliciting Activities for Middle School Students”

Mentors: Dr. Diana Cheng and Dr. Kimberly Corum (Mathematics)

Junela Hunat

Annual Biomedical Research Conference for Minoritized Scientists

Anaheim, California, November 8–12, 2022

Presentation: “Evaluation of Dematin Expression in Wild-type and TLR4-/- Mice for Application in Studies of Endotoxemia”

Mentor: Dr. Erin Harberts (Biological Sciences)

Larissa Speaks

Annual Biomedical Research Conference for Minoritized Scientists

Anaheim, California, November 8–12, 2022

Presentation: “Development of a Test for a Pathogen from the Middle East”

Mentor: Dr. Kelly Elkins (Chemistry)

Michel Kane-Jackson

Annual Biomedical Research Conference for Minoritized Scientists

Anaheim, California, November 8–12, 2022

Presentation: “Generating a Library of LPS Modified Gram-Negative Bacteria”

Mentor: Dr. Erin Harberts (Biological Sciences)

Phoebe Calkins

Annual Biomedical Research Conference for Minoritized Scientists

Anaheim, California, November 8–12, 2022

Presentation: “Identification of Food Contaminants Using Innate Immune Toll-like Receptors (TLRs)”

Mentor: Dr. Erin Harberts (Biological Sciences)

Samantha Topka

American Chemical Society Fall 2022 Meeting

Chicago, Illinois, August 21–25, 2022

Presentation: “Bimetallic Supercage Bi-icosahedron Au₂₅ Clusters: An Optical and Electrochemical Study”

Mentor: Dr. Mary Sajini Devadas (Chemistry)

Victoria Akingbehin

Annual Biomedical Research Conference for Minoritized Scientists

Anaheim, California, November 8–12, 2022

Presentation: “The Effects of TcpC on Grazing Resistance by the Social Amoeba *Dictyostelium discoideum*”

Mentor: Dr. Michelle Snyder (Biological Sciences)

Zara Freeland

American Chemical Society Fall 2022 Meeting

Chicago, Illinois, August 21–25, 2022

Presentation: “Water Soluble Gold Nanoclusters for Biological Applications”

Mentor: Dr. Mary Sajini Devadas (Chemistry)



AWARD NARRATIVES

Department of Biological Sciences

The Betty Kennedy Dale Scholarship Endowment Fund provides scholarship awards for students studying the biological sciences. Dale was an alumna of the Class of 1942. She died in the spring of 2007.

The Biology Alumni Scholarship is awarded to the student who has excelled academically, has served the University and has been involved in research.

The Carl Henrikson Award for Academic Achievement by a Junior honors Dr. Carl Henrikson earned a bachelor's degree in chemistry and biology and a Ph.D. degree, both from the University of North Dakota. In 1970, he joined the biology department with a specialty in tissue culture, immunology and microbiology. He died at the end of the spring term in 1991.

The Compton N. Crook Award for Outstanding Junior honors Dr. Compton Crook who came to Towson State Teachers College in the 1940s. A national park ranger in Yellowstone before coming to Towson, Dr. Crook taught ecology and ornithology and wrote science fiction books under the pseudonym "Stephen Tall" while in the biology department. The Baltimore Science Fiction Society still awards the Compton Crook Award for their best new science fiction writer.

The Dr. Ruth Stocking Lynch Memorial Scholarship for Biology Scholars was established by Dr. Morton M. Kreiger, Class of 1943, to honor professor and former science division chair Dr. Lynch. Sixty-two years following his graduation, Dr. Kreiger continues to count Dr. Lynch among his most memorable teachers and as someone who helped influence his decision to pursue his career in medicine.

The James Ewig Memorial Scholarship honors Dr. Jim Ewig, who was a neuroendocrinologist and mammalian physiologist trained at the Pennsylvania State University. He served the biology department from 1971 until his untimely death in the fall of 1990.

The James Moniodis Scholarship was created in memoriam of James Moniodis, a biology major and member of the TU men's gymnastics team. Following his untimely death in a trampoline accident, the scholarship was established by his friends and family.

The John David Horst Memorial Scholarship Endowment provides awards to biology majors who have completed outstanding research projects in the previous academic year. This scholarship was established in 1974 by John Horst '42, Director of Alumni Services at, former, Towson State, in memory of his son, John David Horst '70. John David Horst was serving in the U.S. Marine Corps as a 1st Lieutenant when he was killed in 1974 while flying in a helicopter during the Vietnam conflict. Horst's father endowed this scholarship in memory of his son who was a biology major.

The Lois D. Odell Biology Scholarship for Outstanding Transfer Student and the Lois D. Odell Biology Award for Outstanding Senior Biology Student.

A native of New York State, Dr. Odell joined the Science Department of what was then the Maryland State Teacher's College at Towson in 1947. She taught botany, natural science, and science education, serving the department with distinction until her retirement in 1981. Dr. Odell died in December 2002.

The Mary Scarbrough-Carr Scholarship was established in 1990 with gifts from friends and family of the late Towson University employee to provide scholarship support to full-time outstanding Biology majors. It is awarded to a junior or senior biology major who has earned a GPA of 3.5 or higher after completing 75 or more credits at Towson. Preference is given to students who are actively involved in research and/or are carrying out biologically oriented volunteer service to the department or the broader community.

The Wendy M. and Jeffrey C. Miller, D.D.S. Endowed Scholarship was established in 2013 to honor Dr. Jeffrey Miller's Towson University legacy and to honor his wife, Wendy M. Miller. Dr. Miller graduated Summa Cum Laude from Towson in 1978 with a Bachelor of Science degree in biology and went on to receive his Doctor of Dental Science degree from the University of Maryland School of Dentistry in 1982. Mrs. Wendy M. Miller graduated from the University of Maryland School of Nursing in 1984 with a Bachelor of Science in Nursing degree. The Wendy M. and Jeffrey C. Miller, D.D.S. Endowed Scholarship provides scholarship support for students enrolled as Biology majors in the Department of Biological Sciences. Eligible students must have achieved at least junior class standing and have a cumulative GPA of 3.5 or higher.

The Wilfred B. Hathaway Award is given to an outstanding graduate student in the Department of Biological Sciences. The Hathaway awardee is selected based on outstanding achievement in research, teaching and/or service. The award is named for Dr. Wilfred B. Hathaway, an entomologist and botanist, who joined the College's science department in 1950. He left the department in 1967 to become dean of the graduate program. He retired in 1980.

Department of Chemistry

The Achievement in Organic Chemistry Award is awarded to student with demonstrated outstanding performance in Organic Chemistry having earned a grade of "A" in both CHEM 331/332 as well as the highest GPA of eligible students.

The Alan and Eileen Wingrove Endowment for Chemistry Scholars honors Dr. Alan Wingrove who was a Professor of Organic Chemistry. His wife Eileen was a graduate of the Department of Chemistry. Dr. Wingrove had a passion for teaching chemistry, particularly to undergraduate students. He established the Alan and Eileen Wingrove Chemistry Scholars program to encourage students to study chemistry. The scholars can be either freshmen, sophomores, juniors or seniors majoring in Chemistry. The Scholars' stipends

are awarded annually on a competitive basis, based on merit, and may be used to cover tuition and fees. Dr. Wingrove died in January 2007.

The American Chemical Society Division of Analytical Chemistry Award is presented to the student who demonstrates remarkable aptitude and success in analytical chemistry.

The American Chemical Society Division of Organic Chemistry Award is presented to the top graduating senior who demonstrates excellence in organic chemistry.

The CRC Press Freshman Chemistry Achievement Award is presented to the student who demonstrated outstanding achievement in general chemistry.

The Excellence in Inorganic Chemistry Award is awarded to a student who has demonstrated excellence in inorganic chemistry at the undergraduate level in CHEM 323 Inorganic Chemistry. The student nominee must also have demonstrated keen interest in the subject either through advanced coursework, research or other enriching activities that are related to the field of Inorganic Chemistry in either a pure or applied setting.

The Floyd Blankenship Memorial Award is designed to recognize remarkable aptitude and demonstrated ability in physical chemistry. Floyd Blankenship was one of the founding fathers of the department of chemistry and taught physical chemistry here for many years.

The Frank R. Milio Book Award honors the memory of Professor Frank R. Milio, who served for 43 years and whose many contributions included development of the Medicinal Chemistry and Forensic Chemistry programs, directing the Premedical/Predental program, leading the effort to save the Chemistry major when it was threatened with elimination and coauthoring several chemistry textbooks. As a revered teacher, he touched the lives of thousands of students during his career. The award is used toward the cost of books for chemistry majors who intend to pursue careers in chemistry, forensic chemistry or professional programs in medicine, dentistry or pharmacy. In recognition of Dr. Milio's commitment to students who exhibited determination and hard work, recipients shall be those who show promise in their chosen discipline, are in good academic standing, and who have demonstrated financial need.

The Gibbs Award for Excellence in Chemistry was created by Joy Blitz, a graduate of the Chemistry Department, to honor her parents and her family for the support they gave her as she worked to earn a second bachelor's degree in chemistry.

The Greater Washington Institute of Chemists Student Award is presented to the Chemistry major, usually in their Junior Year, with outstanding scholastic achievements and professional growth in chemistry. The award is presented by the Greater Washington Institute of Chemists to outstanding students in the greater Washington area on behalf of the American Institute of Chemists Foundation.

The Linda Sweeting Endowment for Undergraduate Research in Science Award was established in 2007 with a bequest from Dr. Linda Marie Sweeting. During her 33 years at Towson, Dr. Sweeting achieved a record of distinction in research, teaching and service. She received a B.S. in 1964 from the University of Toronto with Honors in Physics and Chemistry; an M.A. the following year in Chemistry; and a Ph.D. in 1969 from the University of California, Los Angeles in Chemistry. The purpose of Dr. Sweeting's gift is to provide student stipends for undergraduate research in science.

The Maryland Section of the American Chemical Society Achievement in Chemistry Award for the overall achievement in chemistry by a senior.

The Ronald and Linda Raspet Undergraduate Research Fellowship was created by Ron class of 1974, and Linda Raspet class of 1975, to help a new generation of students become involved in a research experience.

The Student Affiliates of the American Chemical Society Endowed Scholarship is presented to a Chemistry major in their junior or senior year with a minimum GPA of 2.65 in Chemistry and 3.00 GPA overall. The student must be active in at least one campus or community-based activity outside of the classroom.

Department of Computer and Information Sciences

The AOC (Association of Old Crows) Scholarship - Susquehanna Chapter at Aberdeen Proving Ground awards scholarships to students majoring in the computing and engineering fields from local universities and colleges each year. Founded in 1964, the AOC is a not-for-profit international professional association with over 13,500 members and 185+ organizations in 47 countries. AOC's membership includes military and industry executives, scientists, engineers, operators, and educators who have common interests in Electronic Warfare (EW), Electromagnetic Spectrum Management Operations, Cyber Electromagnetic Activities (CEMA), Information Operations (IO), and other information related capabilities.

The Applied Information Sciences Scholarship is awarded to the Computer Information Sciences majors with the highest GPA.

The CyberCorps® Scholarship Awards, funded through a grant by the National Science Foundation Scholarship for Service (SFS) program, provide scholarships for undergraduate students pursuing studies in computer science with a track in computer security. The scholarship benefits cover full tuition and fees, a stipend, professional development support and a book allowance. The scholarship is renewable for a total of two years.

The CySP Scholarship – the Department of Defense (DoD) Cyber Scholarship Program (CySP) is to support the recruitment of new cyber talent and the retention of current highly skilled professionals within the DoD cyber workforce. This program serves to enhance the national pipeline for the development of cyber personnel by providing grants to institutions of higher education.

The Doris K. Lidtke Excellence in Service Award is awarded to undergraduate seniors enrolled in any existing or future program within the Department of Computer and Information Sciences, who have a minimum grade point average of 3.5 and who have provided volunteer service to a computer club or organization on campus, served as a volunteer tutor, or have provided some similar type of volunteer service in the area of computer science. Funds for this award result from a locally-held national conference on computer science education organized by Dr. Lidtke. Her desire in providing such an award is to encourage and reward exceptional students who have demonstrated significant leadership and/or service in their discipline.

The Dr. Harry Zhou CIS Graduate Scholarship was established by Donors to memorialize Dr. Harry Zhou, former TU professor of Computer and Information Sciences.

The James W. Smith Scholarship honors the memory of a beloved of former faculty member. Jim was a native of Troy, New York, and received his B.S. degree in mathematics from the University of Rochester and his M.S. in mathematics from the University at Buffalo of the State University of New York. He came to TU to teach in the Department of Mathematics in 1967. When computer science classes began a few years later, Jim was first a student, then a teacher, in those classes. In 1984 when the Department of Computer and Information Sciences was formed, Jim joined the new group, and completed a M.S. degree in computer science at Johns Hopkins University. Jim was then instrumental in curriculum development, course design, and the establishment of computer laboratories. Even in later years, he continued his collaboration to develop more new courses: first with mathematics colleagues to develop Mathematics of Information Science, and later with computing colleagues to develop Computers and Creativity. He was awarded advancement to “extraordinary status” as a faculty member on the basis of his personal and faithful service, his outstanding record of teaching, and his continued love of scholarship and learning. As a very real expression of this love, the primary endowment for this award was personally established by Jim at his untimely death on August 11, 2001. His bequest has been supplemented by the thoughtful gifts of many others.

The Mary Hudson Scarborough Award for Excellence in Computer and Information Sciences is awarded to outstanding graduating seniors. Mary Hudson Scarborough was a native of Worcester County, Maryland and entered the State Normal School (now Towson University) in 1889. In that year, she became principal of the Model School, an elementary school operated by the Normal School. In 1907, she became a faculty member of the Normal School and taught mathematics there for thirty years. Following her retirement, she served as Alumni Field Secretary until 1947. She died in 1953.

The Mid-Atlantic CIO Forum Scholarship with Towson University, in a partnership with information technology executives (Chief Information Officers) in the Mid-Atlantic region, became host to the Mid-Atlantic CIO Forum in 2003. The Forum fosters excellence in business and information technology in an

environment that promotes educational and networking opportunities for CIOs facing similar challenges and issues. Since 2006, the Mid-Atlantic CIO Forum has awarded scholarships to many well-deserving Towson University students. Candidates must be full-time sophomores, juniors, or seniors with a 3.6 or higher GPA, who are studying Computer Science, Computer Information Systems, Information Technology, and E-Business, and who have completed at least one full year of study at Towson University.

The Wendy and Larry Letow Endowed Scholarship was created in 2014 by Mrs. Wendy Letow and Mr. Larry Letow to provide for students pursuing a career in computer science and information systems. Eligible students must have achieved at least junior class standing and have a cumulative GPA of 3.0 or higher. From the students who meet these criteria, additional consideration is given to students who participate in an intercollegiate sport at Towson University.

Department of Mathematics

The Ann L. Wagner Scholarship in Mathematics honors Ann Wagner who was born and raised in Manitowoc, Wisconsin. She graduated from Silver Lake College with a bachelor's degree in mathematics. Wagner received her master's degree in mathematics from Bowling Green State University in Ohio and joined the faculty at Towson University in 1968. Wagner often taught seminars and workshops for Elderhostel programs and for youngsters. She designed and taught the first courses for girls in the Program for Mathematically Precocious Youth, and she ran several other programs for the Maryland Science Center. Wagner is fondly remembered for her caring and mentoring of students. She was also helpful to women coming back to school many years after high school. Wagner taught at Towson University for twenty-five years until her early death in 1993.

The Department of Mathematics Scholarship recognizes the superlative academic achievement of a Mathematics student.

The Eunice Bowers Schmied (Class of 1930) and Karl Otto Schmied Memorial Scholarship honors Eunice Bowers Schmied who graduated in 1930 from State Normal School (now Towson University) with a major in elementary education. She was a mathematics teacher and later a mathematics supervisor in the Baltimore City Public Schools. Her late husband, Otto Karl Schmied, taught modern languages in Baltimore City. Mrs. Schmied was active in alumni events for many years. She died in 2003.

The Mary Hudson Scarborough Award for Excellence in Mathematics, the Mary Hudson Scarborough Award for Excellence in Middle School Mathematics Education and the Mary Hudson Scarborough Award for Excellence in Secondary Mathematics Education are awarded to outstanding graduating seniors. Mary entered the State Normal School (now Towson University) in 1889. In that year, she became principal of the Model School, an elementary school operated by the Normal School. In 1907, she became a faculty member of the Normal School and taught mathematics there for thirty

years. Following her retirement, she served as Alumni Field Secretary until 1947. She died in 1953.

The Porter Family Scholarship in Mathematics and Computer Science began in 2017 thanks to a generous donation from E. Clarke Porter '76 and Phyllis A. Thomson. The award alternates yearly between a mathematics major and a computer science major.

The Mildred T. Becker Scholarship was established by Mark Becker '80 and Laura Voisinet '81 in 2005 to honor his mother and to encourage promising mathematics students. Mrs. Mildred T. Becker passed away in 2011. Dr. Mark Becker is currently the President of Georgia State University in Atlanta, Georgia.

The Joyce C. Neubert Award in Mathematics was established in memoriam of Joyce C. Neubert who was born and raised in Baltimore, Maryland. She graduated from The Catholic High School of Baltimore and Mount St. Agnes College. She received her master's degree in mathematics from The Catholic University of America in Washington, D.C., and joined the mathematics department at Towson University (then Towson State College) in 1968. Among her many accomplishments: Neubert earned a Towson State University Merit Award for Outstanding Faculty and a Student Government Award for Teaching Excellence. Neubert was a volunteer with the House of Ruth and the National Organization for Women. She also supported the work of HERO (Health Education Research Organization). Neubert taught at Towson University for twenty years before her untimely death on May 29, 1987.

The Marie D. Rutenbergs Scholarship in Mathematics was established in 2014 by Assistant Professor Marie D. Rutenbergs, who taught at Towson University from 1967 until her retirement in 1999.

The Dr. Sarhangi Endowed Scholarship honors the memory of Dr. Reza Sarhangi, Professor of Mathematics Education in the Department of Mathematics. The recipient is a mathematics major who demonstrates a special interest in the mathematical connections in art, music, architecture, education and culture.

Department of Physics, Astronomy and Geosciences

The Eddie Loh Undergraduate and Graduate Physics Scholarships were established in 2017 with a generous gift from Professor Emeritus Eddie Loh, who taught physics and chaired the Department of Physics, Astronomy and Geosciences at Towson University for many years.

The Edward I. Rubendall Physics and Geosciences Achievement Awards and The Edward I. Rubendall Endowment honors the memory of the late Professor Edward I. Rubendall, who shepherded the development of Towson's Physics Program in its early days. Today this endowment provides the Department of Physics, Astronomy and Geosciences support for its programs and students. Expendable income may be used for scholarships, awards, and

other activities that directly benefit the Department and its students.

The Geoscience Achievement Award recognizes the notable academic achievement of a geoscience student.

The Mineralogical Society of America Undergraduate Prize is provided by the Mineralogical Society of America to recognize academic achievement in the field of mineralogy and petrology. Students must be nominated by a faculty member who is a member of the MSA.

The William F. Pelham Award for the Outstanding Junior honors the late Professor Bill Pelham, who played an important role in faculty governance of Towson University. Pelham epitomized the department's diversity: educated in chemical engineering, he came to Towson as a science educator and left as a mainstay of the physics program. The Pelham award goes to the outstanding junior in the Department of Physics, Astronomy and Geosciences irrespective of his or her major.

Towson UTeach

The Dollenberg Family Scholarship was established by P. Douglas and Kathleen Dollenberg in 2008 to provide support to students who are pursuing a career in teaching mathematics and who are graduates of a Baltimore City or Baltimore County high school.

The Dr. Carol L. and Robert E. Daihl Endowed Scholarship was established in 2007 with a gift from Carol Daihl in memory of her late husband, Robert. He taught at Towson University for nearly 30 years. The scholarship is for science majors within the Fisher College who intend to teach in a secondary school and is awarded during the semester they are student teaching.

The Dr. George E. Hohl '55 and Anne S. Hohl Endowed Scholarship for Towson UTeach was established in 2014 to provide scholarships for undergraduate students planning to pursue a career as a secondary teacher in one or more STEM disciplines. Dr. George Hohl was a previous President of the Towson University Alumni Board. His long and successful career with Baltimore County Schools included many years as a school Principal.

The Kahlert Foundation Scholarship for Towson UTeach began in 2015 to reflect the support of Greg and Roberta Kahlert for the success of Towson UTeach students. Roberta Kahlert '69 is retired from the Baltimore County Public School System where she taught middle school English at Arbutus Middle School.

The R. Elizabeth Remsberg '27 Endowed Scholarship for Towson UTeach began in 2013 thanks to a generous gift from Dr. Dudley and Mrs. Angela Smith of College Station, TX. Established in recognition of their parents (Dudley & Verta Smith and Charles & Elizabeth Remsberg) all of whom were trained as teachers. This scholarship is named for Elizabeth Remsberg who was educated in Frederick County and graduated in 1927 from the Maryland State Normal School.

Towson UTeach General Endowment Scholarship recognizes the superlative academic achievement of a UTeach student.

ENVS-Environmental Science & Studies

The Francesca Borrelli Johnson Endowed Environmental Scholarship was established on behalf of Francesca Borrelli Johnson (BS, Natural Science, 1993) who was an engaging student, an eager learner, a committed volunteer, and a passionate environmentalist. At the time of her tragic death on December 26, 2004, she was a graduate student in Environmental Science, studying water resource management. The scholarship provides support for undergraduate or graduate environmental science or environmental studies students who demonstrate the same values of engaged learning and environmental protection.

TOPS – Towson Opportunities in STEM

TOPS Program Scholarship

Towson Opportunities in STEM (TOPS) is a learning community program committed to celebrating diverse experiences and perspectives. The TOPS Program is a unique opportunity available to students majoring in Science, Technology, Engineering and Mathematics (STEM) at Towson University and provides peer support and mentoring, career exploration and other student success initiatives.

Fisher College - Office of the Dean

The Fisher College Scholarships are to honor Jess Fisher who was a student at Towson University 90 years ago. A Baltimore native, he attended TU in the early 1930s, when it was known as the State Normal School. He was a member of both the school basketball and football teams. Although he did not complete his degree, his classes left a lasting impression. Had he completed his degree, he would have been a member of the class of 1934. Fisher founded and was president of Jess Fisher & Co., a real estate and development corporation in Washington, D.C. He founded the Robert M. Fisher Memorial Foundation in honor of his son who died in 1969. A strong believer in the importance of science and mathematics education, Fisher guided the foundation in support of many local programs, including research endeavors and scholarships. In June 2005, the Fisher Foundation made a \$10.2M gift to the university, for which this college is named. As part of that gift two scholarships were specified: one in memory of his son Robert and the other in memory of his daughter Cecilia.

The Jess Fisher, Class of 1934, College of Science and Mathematics Scholarship in Memory of Cecilia Fisher Rudman was established to honor the memory of the Fisher Family, and in particular, Cecilia Fisher Rudman, by providing annual full-tuition scholarships for exceptional undergraduate students in the Fisher College of Science and Mathematics. Preference is given to incoming freshmen.

The Jess Fisher, Class of 1934, Pre-Engineering Scholarship in Memory

of Robert M. Fisher was established to provide annual full-tuition scholarships for exceptional undergraduate students planning a career in engineering. Preference is given to incoming freshmen.

The Richard E. Burdette, Jr. Scholarship was established for continuing full-time undergraduate junior or senior year students who demonstrate significant leadership and service to the university through student organizations, university committees, participation in study abroad programming or outstanding contributions to campus life. Richard Burdette III (Physics '96) funded this scholarship in honor of his father, Richard E. Burdette, Jr. Recipients may be majors in any program of the Fisher College of Science and Mathematics.

The Michele M. Cooper, M.D. Scholarship was established in 2011 with a gift from Dr. Michele M. Cooper. Dr. Cooper is a plastic surgeon who earned her B.S. in Biology from Towson University in 1991. She was a graduate of Anne Arundel County Public Schools, and she was the first person in her family to attend college (a "first generation" college student). Dr. Cooper's gift is intended to award a scholarship to a similar science or math student from Anne Arundel County.

The Willard Hackerman Scholarship was established by Willard Hackerman for incoming freshmen students from Baltimore Polytechnic Institute who are committed to major in a program housed in the Fisher College of Science and Mathematics. A graduate of Baltimore Polytechnic Institute he had a profound impact on the Baltimore community and passionately supported the STEM disciplines.

The Hill-Lopes Scholarship was established by Barbara Hill and Ancelmo Lopes, friends of Towson University, to support diversity in science and mathematics. The Hill-Lopes Scholars Program provides dedicated, transformational support for Fisher College of Science and Mathematics majors to support the advancement and retention of women in the science and mathematics workforce.

The L. Melvin Roberts Memorial Scholarship was established by Mr. Melvin Roberts, a friend of Towson University, to provide financial support to worthy students in any program of the Fisher College of Science and Mathematics. The awards, under the direction of the dean, are made to students in their junior or senior year, and may be based on merit, financial need, or both.

The Goldwater Scholarship Program, administered by The Barry Goldwater Scholarship and Excellence in Education Foundation, supports outstanding sophomores and juniors who show exceptional promise of becoming the nation's next generation of research leaders in the natural sciences, engineering and mathematics. Recipients have a strong commitment to a research career, display extraordinary intellectual intensity, and show great potential for significant future contributions in their chosen field.

The Maryland Space Grant Consortium Scholarship is awarded to support full-time students who are attending an affiliate institution (including Towson

University), who need financial support, and who are pursuing studies in mathematics, computer science, the biological and life sciences, chemistry, geological sciences, physics, or astronomy, and whose career aspirations are related to aerospace or may lead to a NASA-relevant career.

The John B. '71 and Sharon Hafner Yingling '71 Scholarship is awarded to support students studying the natural sciences in the Jess and Mildred Fisher College of Science and Mathematics. Established in March of 2022 in honor of Sharon Hafner Yingling's time as a biology major and her long-time career in science.

The Jess and Mildred College of Science and Mathematics
2023 Honors Convocation

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