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MESSAGE FROM THE UNIVERSITY PRESIDENT

Graduates, parents and friends. Commencement is always the highlight of the academic year, for the students we are honoring, especially, but also for the faculty and staff who have helped our students achieve so much.

When the COVID-19 pandemic abruptly changed our lives this spring, sending students home and curtailing so many of the activities we all would have experienced had they remained on campus, most painful was the postponement of the University’s Commencement exercises that are traditionally the highlight of the academic year.

Our graduates have gained the experiences and knowledge that their careers and future engagements will demand of them. Ours is a campus where students learn by doing, and our graduates have already proven themselves — winning prestigious case competitions and grants, publishing papers that have gained acclaim from scientists and scholars, and bettering their communities through hands-on internships and practicums.

Outside the classroom, they have embraced their responsibilities as active members of the community. They’ve raised funds to combat deadly disease, provided food for the hungry, taught younger students in local schools and traveled across the globe to work with and learn from their international peers. Their actions and achievements are inspiring and set a high bar for the classes that will follow, and with that they will all remain members of the Binghamton University community.

Our graduates have learned the practical, technical and professional skills that will enable success throughout their careers. But, most important, Binghamton University has provided the foundation in the liberal arts and participation in a diverse and international student body that gives all our students the understanding and perspectives they need to address the challenges we face in society today and in the coming decades.

Commencement is a shared celebration that recognizes not only the talents and perseverance of our graduates, but also the dedication and commitment of the outstanding faculty who helped them learn. And most of all, it allows us to recognize the support and guidance of families and friends.

Though we are not yet celebrating in person, I hope this program will help acknowledge the achievements of our students as scholars and engaged citizens, and mark the turning point when they begin to apply their talents “in the real world.” Whatever the future holds for them, they leave Binghamton with a strong foundation for success.

It has been a pleasure to witness the achievements of the Class of 2020. Graduates, thank you for choosing Binghamton University. I am pleased and proud to celebrate your accomplishments, certain that you are well prepared for the future and that you will continue to make a mark on our world.

Sincerely,

Harvey G. Stenger
President
DISTINGUISHED DISSERTATION AWARDS

Irem Ayan
“Alienated Tongues: Emotional Labor and Sabotage in Conference Interpreting”
Translation Studies: Prof. Joshua M. Price

Anthony Canino
“Language Support for Adaptive Energy-Aware Applications”
Computer Science: Prof. Yu Liu

Jessica Derleth
“‘Silence Forever the Slander’: Gender as Political Strategy in the American Woman Suffrage Movement”
History: Prof. Leigh Ann Wheeler

James Fitz Gerald
“Supplanting the Sword: Reading the Rise of U. S. Imperial Medicine, 1898–1955”
English: Prof. Joseph Keith

Xiang Gao
“Three Essays on Credit Markets”
Management: Prof. Cihan Uzmanoglu

Alexander Horspool
“Characterizing Small Molecule Induced Outer Membrane Vesicle Biogenesis in Gram-Negative Bacteria”
Biological Sciences: Prof. Jeffrey Schertzer

Jeremy Mehta
“Nanoscale Charge Transport in Organic Solar Cells”
Physics: Prof. Jeffrey Mativetsky

Kevin Revier
“Policing Pain: Opioids, Crisis, and a Shifting War on Drugs”
Sociology: Prof. Joshua M. Price

Kellam Throgmorton
“Peoplehood and the Political Power of Landscape Change: Chacoan Interventions in the Northern San Juan Region”
Anthropology: Prof. Ruth Van Dyke

Haifeng Wang
“Deep Learning Optimization for Optical Coherence Tomography Medical Image Analysis”
Systems Science and Industrial Engineering: Prof. Sang Won Yoon

Shan Yan
“Synthesis, Preparation and Characterization of Nanomaterials and Assemblies for Exploring Their Sensing and Biosensing Applications”
Chemistry: Prof. Chuan-Jian Zhong

Basak Yuce
“Remapping World Literature: Writing the Modern in Fin-de-Siècle Brazil and Turkey”
Comparative Literature: Prof. Luiza Franco Moreira
CANDIDATES FOR DOCTORAL DEGREES

Lubna Ahmad Abdul-Hadi
*Translation Studies*: Prof. Joshua M. Price

Mohammed-Rabiu Abubakari**
“A Mixed Methods Study of Food Outlet Accessibility in Broome County New York: Analyses from an Interdisciplinary Feminist Geography and Social Epidemiology Framework”
*Community and Public Affairs*: Prof. Lubna Chaudhry

Jishnu Adhikari**
“Geomicrobiology of Arsenic and Antimony in Bengal Delta Plain”
*Geology*: Prof. Thomas R. Kulp

Azadeh Akhakirad**
“Applications of Optimization in Vehicle Routing Problem and Smart Homes Powered by Local Resources”
*Industrial and Systems Engineering*: Prof. Yong Wang

Essa Milhim Rakan Al Wadani
*Translation Studies*: Prof. Michael J. Pettid

Saqer Abdulla Almarri*
“The Khuntha and the Community: A Study in the Medieval Islamic Understanding of the Body and a Critical Edition of Abd Al-Rahim Al-Isnawi’s Idah Al-Mushkil Fi Ahkam Al-Khuntha Al-Mushkil”
*Translation Studies*: Prof. Maria C. Lugones*

Hussam Ali Mahmoud Alothman*
“Fault Identification in Multivariate Processes Using the Analysis of Multiple Univariate Statistical Quality Control Charts along with T2 Multivariate Quality Control Charts Based on the Effect of the Underlying Variances and Covariances”
*Industrial and Systems Engineering*: Prof. Nagendra N. Nagarur

Saba Abdel Mouty Fayad Al-Sayouri**
“Learning Large-Scale Network Representations”
*Industrial and Systems Engineering*: Prof. Sarah S. Lam

Ohood Qasim Alsmairat
“Mechanical Characterization of Electrospun Nanocomposite Microfiber”
*Mechanical Engineering*: Prof. Changhong Ke

Sulaiman M. Alsowaina
“Translation as Secularization: An Analysis of Arabic Translations and Post-Translation Adaptations of Self-Help”
*Translation Studies*: Prof. Mary Yoossef

Enshirh Ibrahim Altarawneh
“Modifiable Encrypted Pad-Injection for Steganographic File System”
*Electrical and Computer Engineering*: Prof. Scott A. Craver

Rigoberto Andino**
“Coffee, Sugar, Enslaved Labor and the Social Production of Space: Slavery in the Municipality of 1872 Mayaguez, Puerto Rico”
*Sociology*: Prof. Kelvin Santiagovalles

Apurva Apurva
“Becoming Pune: Accumulation, Accommodation and the Production of a Knowledge City”
*Sociology*: Prof. Caglar Keyder

Beniam Awash
“Violent Climate: Political Ecology of Climate Change, Violence and ‘Land Grabs’ in Darfur, Sudan and Abiyotawi (Revolutionary) Ethiopia”
*Sociology*: Prof. Jason W. Moore

Irem Ayan*
“Alienated Tongues: Emotional Labor and Sabotage in Conference Interpreting”
*Translation Studies*: Prof. Joshua M. Price

Kyle Anthony Bayes*
“Index Theorems for Closed Geodesics”
*Mathematics*: Prof. Pedro Ontaneda

Melody Rose Marks Best**
“The Effect of Training Method on Bedside Nurses’ Documentation Proficiency in an Electronic Medical Record”
*Nursing*: Prof. Mary A. Swain

Huanjing Bi**
“Tissue Specific Matrix Recapitulates Pancreatic Islet Organoids from Pluripotent Stem Cells”
*Biomedical Engineering*: Prof. Sha Jin

Mehdi Boroumand**
“Advancing Machine Learning Based Detectors for Steganalysis of Digital Images”
*Electrical and Computer Engineering*: Prof. Jessica J. Fridrich
Summer Bottini  
“Selecting How to Implement Discrete Trial Training: A Comparison of Massed Trial and Task Interspersal”  
Psychology: Prof. Raymond Romanczyk

Michele Lynn Brennan  
“A Pre-briefing Educational Program Designed to Improve Confidence Levels for Health Assessment Graduate Nurse Practitioner Students Utilizing Standardized Patient Simulation Testing”  
Family Health NP: Prof. Gale A. Spencer

Claire Jean Brown**  
“A Pony World – Hoofed Commodities: Breeding Capital and Culture Through Human-Horse Relations in the West of Ireland”  
Anthropology: Prof. Thomas M. Wilson

Benjamin Edward Burgholzer  
English: Prof. Leslie L. Heywood

Stephen Louis Capobianco  
“Understanding Influences for LGBTQI+ Inclusion in International Education: An Exploratory Study”  
Community and Public Affairs: Prof. Nadia M. Rubadi

Jenna M. Carter**  
“The Molecular Mechanisms that Modulate Age-Sensitive Responses to the Aversive Properties of Ethanol”  
Behavioral Neuroscience: Prof. David F. Werner

Daniel Castellanos  
“Isotope Analysis in Modern Colombian Teeth: A Forensic Application”  
Anthropology: Prof. Elizabeth A. DiGangi

Ergin Cenebas  
“The Uncanny Kernel of the Subject: Interpellation and Its Discontents”  
Comparative Literature: Prof. Brett S. Levinson

Ximeng Chen*  
“Understanding Emergent Self-Help Groups of Parents Who Have Lost Their Only Child in China”  
Community and Public Affairs: Prof. Kristina Lambright

Yinsong Chen  
“Counting and Sampling Ribbon Tilings”  
Mathematics: Prof. Vladislav Kargin

Hyeok Cho  
“Can the Subaltern Artist Speak? Postmodernist Theory, Feminist Practice, and the Art of Lee Bui”  
Art History: Prof. John T. Tagg

Huashuan Chu  
“Tropicalizing Taiwan: The Environment, Crops, and Institutions of the Japanese Colonial Food Regime, 1895-1945”  
Sociology: Prof. Ravi A. Patat

Denis Chuvilkin  
“The History of Night: Nocturnal Goddesses in European Myth, Literature, and Culture from Late Antiquity to the Early Modern Period”  
Comparative Literature: Prof. Olivia W. Holmes

Andrew Eric Cohen**  
“Diverse Exploration in Reinforcement Learning”  
Computer Science: Prof. Lei Yu

Lindsey Collins  
“Developing a Growth Chart of Ritualistic Behaviors in Childhood: Age-Trends and Factors Associated with Deviation”  
Psychology: Prof. Meredith Coles

Adam Christian Cooke*  
“Investigations into the Biogenesis and Functions of Outer Membrane Vesicles in Pseudomonas aeruginosa Biofilms”  
Biological Sciences: Prof. Jeffrey W. Schertzer

Patrick M. Crowley**  
“Decolonial Aesthetics beyond the Borders of Man: Afro-Caribbean Women Transforming the Human-Aesthetic Nexus”  
Comparative Literature: Prof. Maria C. Lagunes

Amelia Rose Wallace Cyr  
“Deficiency in Signed Graphs”  
Mathematics: Prof. Thomas Zaslavsky

Joseph Donald Cyr*  
“Subdirectly Irreducible Binary Modes”  
Mathematics: Prof. Fernando Guzman

Hussein N. Dalgamoni**  
“Axisymmetric Lattice Boltzmann Model of Droplet Impact on Solid Surfaces”  
Mechanical Engineering: Prof. Xun Yong

Lisa Morelli Daly  
“A Qualitative Descriptive Research Study on Resilience Using the Roy Adaptation Model”  
Nursing: Prof. Mario Ortiz

Riya Das**  
“Women at Odds: Indifference, Antagonism, and Progress in Late Victorian Literature”  
English: Prof. Jessie Reeder*

Husam R. Dauod*  
“Design of Robust Dynamic Order Picking Systems with Congestion Effect”  
Industrial and Systems Engineering: Prof. Sang W. Yoon

Lori Davis  
“Development and Implementation of the Sexual and Vaginal Health After Cancer (SVHC) Care Pathway”  
Family Health NP: Prof. Nicole Routhana

Ali Davoodabadi**  
“Liquid-Solid Interfaces: A Study of Wetting, Imbibition, Mechanical Interactions and Instabilities for Applications from Lithium-Ion Batteries to Thin-Films”  
Mechanical Engineering: Prof. Timothy J. Singler

Alissa D. de Wit-Paul  
“Predock, Reynolds, and Mazria: New Mexico Architects on the Margins of Eco-Architecture in the 1960s and 1970s America”  
Art History: Prof. Thomas F. McDonough

Aaron Michael Decker  
“The Bildergard Affair”  
English: Prof. Alexi Zentner

Jessica Margaret Derleth*  
“Silence: Forever the Slander: Gender as Political Strategy in the American Woman Suffrage Movement”  
History: Prof. Leigh A. Wheeler

Devin Gottardo DiGiacopo  
“Ecological and Evolutionary Impacts of Human Activity in Freshwater Wetlands”  
Biological Sciences: Prof. Jessica Hua

Spoorti Doddamani  
“Live Implementation of Hypervisors Using Lightweight Nested Virtualization”  
Computer Science: Prof. Kartik Gopal

Mi Jin Doe  
“A Paresciencing Inquiry on Hope”  
Nursing: Prof. Mario Ortiz

Francisca-lenae Chinonye Egbuna**  
“Reducing the Risk: Prevention of STI and HIV/AIDS Transmission Among Minority Women with Computer Based Sexual Health Education”  
Community Health NP: Prof. Gale A. Spencer
Laura Eleanor Engel*
“Metaethical Constructivism and Adaptive Preferences”
Philosophy: Prof. Lisa C. Tessman

Asala Erekat
“Breast Cancer Recurrence Prediction Using Right Censored and Unlabeled Microarray Data”
Systems Science and Industrial Engineering Department: Prof. Mohammad T. Khasawneh

Mahdi Furahkin*
“Scattering and Fluid-Structure Interaction Analyses Using Computational Acoustics”
Mechanical Engineering: Prof. Bruce T. Murray

Dinuni Kaushalya Fernando*
“Fast and Robust Live Virtual Machine Migration”
Computer Science: Prof. Ping Yang

Elizabeth Cope Feurer
“Attentional Biases and Individual Differences in Adolescent Stress Reactivity”
Psychology: Prof. Brandon E. Gibb

James Michael Fitz Gerald**
“Supplanting the Sword: Reading the Rise of U.S. Imperial Medicine, 1898-1955”
English: Prof. Joseph A. Keith

Catalina Florez**
“An Investigation of the Regulatory Mechanisms Behind Outer Membrane Vesicle Biogenesis in Pseudomonas aeruginosa”
Biological Sciences: Prof. Jeffrey W. Schertzer

Patricia Anne Follette**
“Conceptualization and Enactment of Teacher Leadership Practice in Rural Schools”
Educational Theory, Research and Practice: Prof. Erin Washburn

Nie Fu
“Cross Cultural Studies of the UGC in the US and China: The Application of Text Analytics in Marketing”
Management: Prof. Chang Hee Park, Prof. Qi Wang

Min Gao**
“Exploring the Norms in the English-Chinese Translation of Children’s Emotions Books”
Translation Studies: Prof. Tarek Shamna

Yang Gao
“Flexible and Stretchable Bacteria-Powered Biobatteries”
Electrical and Computer Engineering: Prof. Seokheun Choi

Sheida Gohari
“Dynamic Robotic Forklift Route Optimization and Inbound Door Assignment in Cross-Docking Using Q-Learning Algorithm”
Industrial and Systems Engineering: Prof. Sarah S. Lam

Kattiria M. Rosario Gonzalez
“Trust and Caring: Dominican Republic Host Community Perspectives on Nursing Student Short-Term Study Abroad”
Nursing: Prof. Gale A. Spencer

Feilin Gu
“Investigating the Interfacial Stress Transfer in 1D/2D Based Nanocomposite and Nano-Device”
Mechanical Engineering: Prof. Changhong Ko

Erina Parker Gruner**
“Ritual Assemblages and Ritual Economies: The Role of Chacoan and Post-Chacoan Sodalities in Exotic Exchange Networks, A.D. 875-1300”
Anthropology: Prof. Ruth M. Van Dyke

Han Gu**
“Synthesis and Characterization of Boron-Nitrogen Heterocycles for Applications in Bioorthogonal Chemistry”
Chemistry: Prof. Susan Bane

Ganesh Sainadh Gudavalli*
“Carbon Nanotube/Manganese Oxide Composite Electrode Materials for Hybrid Supercapacitors and Lithium Ion Battery Anode”
Electrical and Computer Engineering: Prof. Tara Dhakal

Jie Guo
“Ineffective Leadership as Unintended Leader Hostility: Conceptualization, Pre-Crastination and Procrastination, and Follower-Related Consequences”
Management: Prof. Shelley Dionne

Rong Guo
“Three Essays on Finance”
Management: Prof. Syed Walid Reza, Prof. Kristian Ryderquist

Yaser Hadad**
“Design and Optimization of Liquid-Cooling Systems Used in High Performance Electronic Packaging”
Mechanical Engineering: Prof. Paul B. Chiarot

Samad Hajinazar**
“Stratified Construction of Neural Network Potentials and Co-Evolutionary Global Structure Optimization for Acceleration of Ab Initio Materials Prediction”
Physics: Prof. Alexey Kolmogorov

Ahmed Hadi Hakami**
“Gaps Between the Literal Translation and Implied Translation in The Thief and the Dogs by Naguib Mahfouz. An Empirical Study”
Translation Studies: Prof. Michael J. Pettid

Farouq F.I. Halawa
“Integrated Framework of Process Mining and Simulation-Optimization for Evidence-Based Healthcare Design”
Industrial and Systems Engineering: Prof. Mohammad T. Khasawneh

Kayla Alexis Hardy
“The Ides of Antebellum”
English: Prof. Jamee Wriston Colbert

Chaniya Holmes*
“Three Essays in Applied Labor Economics”
Economics: Prof. Christopher L. Hanes

Cagri Idiman**
“ Hegemony in the Making of the West: Nature, Classes, States”
Sociology: Prof. Jason W. Moore

Vanessa Jeanne Jaeger**
“Minor Differences, Major Divides: Character-Type and Intersectionality in Middle English Romance”
English: Prof. Marilyn R. Desmond

Subhadra Jayaraman Rukmini*
“The Development of Whole-Tumor-Cell CD47-Depleted Immunotherapeutic Vaccines Using the CRISPR-Cas9 Gene Editing Technology and Validation in a Syngeneic Mouse Melanoma Model”
Biomedical Engineering: Prof. Kaining Ye

Patrick Willis Vecchione Jeffery**
“Who Matters Most: Determining the Differing Contributions of Congressional Sources on Polarization”
Political Science: Prof. Michael D. McDonald

Qi Jia*
“Preserving Data and Model Privacy in Distributed System for Machine Learning Based Classifications”
Electrical and Computer Engineering: Prof. Linke Guo
Jonathan S. Jones
“Opium Slavery: Veterans and Addiction in the American Civil War Era”
History: Prof. Diane Miller Sommerville

Edwin-Niko Roxas Kabиггинг*
“Feeling Overwhelmed: A Parsesciening Inquiry”
Nursing: Prof. Mario Ortiz

Ki Eun Kang*
“Local-Level Economic Development Conflicts: Factors that Influence Interactions with Developers”
Community and Public Affairs: Prof. George C. Homesy

Carol Kaplan
Chemistry: Prof. Stanley M. Whittingham

Laurinda M. Karpel
“Implementation of a Heart Failure Clinic: Strategy for Reduction in 30-Day Readmissions”
Family Health NP: Prof. Pamela S. Stewart Fabs

Rachael W. Karugu
“Mechanistic Investigations and Mechanism Guided Methodology Development in Bristned Acid and H-Bonding Catalysis”
Chemistry: Prof. Mathew J. Vetticatt

Mariam Kavai**
“Investigating the Structural and Electronic Properties of 3D and 55 Correlated Electron Systems with Scanning Tunneling Spectroscopy”
Physics: Prof. Pegan Aynajian

Jason Robert Kennedy**
“Commensality and Labor at Kenan Tepe: A Use-Alteration Analysis of Terminal Ubaid Ceramics”
Anthropology: Prof. Reinhard W. Bernbeck

Azer Keskin**
“An Archaeology of Mass Deportations and Forced Resettlement: Wadi Ajij in the Neo-Assyrian Period”
Anthropology: Prof. Reinhard W. Bernbeck

Sadegh Khalili**
“Steady and Transient Thermal Studies Toward a Self-Sensing, Self-Regulating Data Center”
Mechanical Engineering: Prof. Bahgat G. Sammakia

Hamed Kianmehr**
“A System Dynamics Approach for Modeling Human Judgment in Complex Health Care Decision Making Problems”
Industrial and Systems Engineering: Prof. Nasim S. Zadehshoobachi

Ozgur Ozan Kickle*
“Scaling Virtual Processors for Parallel Applications in Virtual Machines”
Computer Science: Prof. Kartik Gopal

Lukas Mathew Klee*
“The pH-Low Insertion Peptide (pHILP): Thiolene Photo-Oxidation to Crosslink to Lipids, Drug Delivery, and pHILP-Cell Interactions”
Chemistry: Prof. Ming An

Kasim Kopuz**
“Reproduction of the Ottoman Legal Knowledge: The Case of Ibrahim Al-Halab’s Mutaqa Al-Abhur and Defining the Concept of Baghby in Commentarial Writings on It (16th And 18th Centuries)”
History: Prof. Bifeat A. Abou-El-Haj

Emrah Korkmaz**
“A Cybersecurity System for an Industrial Power Generating Station”
Electrical and Computer Engineering: Prof. Victor A. Skormin

Huseyin Sungur Kuyucuoglu
“Sweatshops: A Normativ Analysis”
Philosophy: Prof. Christopher R. Knapp

Nicole Marie LaBarre
“A Hopeful Journey to Understand Teacher Empowerment in the Current Political Context Through an Elementary School”
Educational Theory and Practice: Prof. Jennifer Gordon

Kathryn Lanza
“Investigating the Role of Dopamine D1 Receptor and D3 Receptor Cooperativity in Dyskinesia”
Behavioral Neuroscience: Prof. Christopher R. Bishop

Ao Li**
“Numerical Modeling of Small Molecule Induced Outer Membrane Vesicle Biogenesis”
Mechanical Engineering: Prof. Xin Yong

Boxiao Li
“Properties and Applications of Vapor Phase Polymerized Poly(3,4-Ethlenedioxythiophene) As Thin Film Electrode, Supercapacitor and Conductive Filler”
Materials Science and Engineering: Prof. Wayne E. Jones, Prof. Louis F. Piper

Jiaxin Li
Chemistry: Prof. Nikolay G. Dimitrov

Jing Li*
Chemistry: Prof. Chuan-Jian Zhong

Xiaohui Li
“Computational Study of Groups VI and VII Transition Metal Bipyridine Complexes for CO2-to-CO Conversion”
Chemistry: Prof. Julien Panderet

Chen Liang*
“Goodness-of-Fit Tests for Spatial Cluster Point Process Models”
Mathematics: Prof. Ganggang Xu, Prof. Xingye Qiao

Joshua Lindenbaum
“Dating Myself (and Others)”
English: Prof. Liz Rosenbarg

Juliet Machtaria
“Mechanistic Studies of Novel Organic Reactions and Development of New Synthetic Methods”
Chemistry: Prof. Mathew Vetticatt

Stephanie Marie Malmberg
“Analyzing Whiteness Among Community College Faculty: A Poststructuralist Study on the Construction of Difference”
Community and Public Affairs: Prof. Lubna Chaudhry

Yanbing Mao**
“Control- and Game-Theoretic Approaches to Secure Networked Systems”
Electrical and Computer Engineering: Prof. Ziog Zhang
Kaitlin McCardle
"Computational Study of Earth-Abundant Electro catalysts Bearing Redox-Active Bipyridyl-N-Heterocyclic Carbene Frameworks for CO2-to-CO Conversion"
Chemistry: Prof. Julien Panetier

Katie Lyn McGowan Bucci
“The High School Side of the Dual Enrollment Partnership: Perspectives and Critical Factors”
Educational Theory and Practice: Prof. Amber M. Simpson

Amanda McKenna Viel*
“The Relationship Between the DIBELS Oral Reading Fluency Assessment Probes and the New York State Common Core Aligned ELA Assessment”
Educational Theory, Research and Practice: Prof. Marla H. Mallette

Haomiao Meng
“Machine Learning Methods on Selected Topics of Precision Medicine”
Mathematics: Prof. Xingye Qiao

Maedeh Mohammadifar
“Biobatteries for Health and Environmental Monitoring”
Electrical and Computer Engineering: Prof. Seokheun Choi

Jose A. Morales Collazo*
“STEM Career Changers’ Motivations to Teach and Perceptions About Teaching During Their Early Years in Teaching”
Educational Theory, Research and Practice: Prof. Marla H. Mallette

Fabiola Moreno Olivas*
“The Role of the Microbiota and Nanoparticulate Food Additives on the Function of an In Vitro Model of the Small Intestine”
Biomedical Engineering: Prof. Gretchen J. Mahler

Hayley Rene Munir
Political Science: Prof. Wendy Martinick

Syed Rashid Munir
“The Opposition Advantage: Coercion in Asymmetric Security Cooperation”
Political Science: Prof. Benjamin Fordham

Rawan Najar
“Sentiment Analysis for Labeled and Unlabeled Text Using Fuzzy and Deep Networks”
Industrial and Systems Engineering: Prof. Sarah S. Lam

Seyed Yahya Nikouei
“Smart Public Safety as an Edge Service: A Lightweight Video Processing and Online Decision Making Approach”
Electrical and Computer Engineering: Prof. Yu Chen

Chukwuzam Nwasike
“Targeted Activatable Magnetic Resonance (MR) Contrast Agents Sensitive to Inflammation Induced Oxidative Stress”
Biomedical Engineering: Prof. Amber Doiron, Prof. Gretchen Mahler

Adenike Zainab Okeowo*
“Assessing Attitudes of Primary Care Providers and Implementing an Educational Program to Increase Referral Rates to Cardiac Rehabilitation”
Community Health NP: Prof. Gale A. Spencer

Erika Dawn Olenik
“Student’s Perceptions of Their Physical Learning Environment”
Educational Theory and Practice: Prof. Marla H. Mallette

Ayelet Oreg**
“Philanthropic Giving in Times of Personal Loss: Bereaved Mothers’ Donation of Their Human Milk to Nonprofit Milk Banks”
Community and Public Affairs: Prof. Susan M. Appé

Roberto J. Ortiz
“The Political Ecology of Global Oil: Uneven Development, Petrodollar Illusions and Climate Crisis, 1900–2019”
Sociology: Prof. Jason W. Moore

Sinan Oruc
“The Grammar of Promising”
Philosophy: Prof. Christopher R. Knapp

Boukary Ouedraogo
“Assessing Languages Across the Curriculum Program Students’ Intercultural Skills: A Contribution to Global-Minded Campuses in Higher Education”
Educational Theory and Practice: Prof. Chesla Ann Lenkaitis

Mehmet Ozdogan
“Simulation of a Bi-Axial Torsional MEMS Micro-Mirror with Sidewall Electrodes”
Mechanical Engineering: Prof. Shahzad Towfighian

Mark Pallay
“An Autonomous, Self-Powered MEMS Sensor and Switch Using Triboelectric Transduction and Electrostatic Levitation”
Mechanical Engineering: Prof. Shahzad Towfighian

Kamrooz Kommy Parchamazad*
Industrial and Systems Engineering: Prof. Nagendra N. Nagarur

Omkar Ramesh Patil
“MobiEye: An Approach Towards Ubiquitous Smart Health Platform for Continuous User Identification and Vital Sign Monitoring”
Biomedical Engineering: Prof. Guy German

John Douglas Patterson**
“Toward a Deeper Understanding of Semi-Supervised Learning”
Cognitive Psychology: Prof. Kenneth J. Kurtz

Kerstin Petersen
“Blood Will Out: Vikings as a Means for Establishing White National Identity and Masculinity in Literary Works of the Victorian Age”
Comparative Literature: Prof. Jessie Reeder

Lisa Sundahl Platt**
“Using Resilient Systems Inference for Estimating Hospital Acquired Infection Prevention Infrastructure Performance”
Systems Science: Prof. Mohammad T. Khasawneh

Shihi Qin*
“Numerical Modeling of Stimuli-Responsive Composite Colloid at Water-Oil Interfaces”
Mechanical Engineering: Prof. Xin Yong

Wenyang Qu**
“Nano-Scale Experimental Study of the Structural and Mechanical Properties of Boron Nitride Nanosheets”
Mechanical Engineering: Prof. Changhong Ke

*Degrees awarded summer 2019  **Degrees awarded fall 2019
Anh Quach
“Attack Space Reduction through Software Hardening and Specialization Using Compiler and Binary Analysis”
*Computer Science: Prof. Aravind Prakash

Kourosh Rahimkhani
“Actors, Strategies and Coordination in Iranian Electoral Politics”
*Political Science: Prof. Mikhail Filippov

Pravakar Prasad Rajbhandari*
“Optimized Device Structure for Hybrid Halide Perovskite-Based Photovoltaic for Application in Tandem Solar Cell”
*Electrical and Computer Engineering: Prof. Tara Dhalal

Bharath Ramakrishnan*
“Experimental Assessment of Liquid Cooled Cold Plates Intended for Improving the Operational Efficiency of a High-Density Data Center Environment”
*Mechanical Engineering: Prof. Bahgat G. Sammakia

Matthew Redell
“Engineering Correlation and Topological Effects in Transition Metal Oxides”
*Physics: Prof. Wei-Chang Lee

Kyle Scott Reeser**
“Novel Three-Dimensional Printing Technology and Nanoparticle Delivery for Targeted Ophthalmological Care”
*Biomaterials Engineering: Prof. Guy K. German

Kevin Douglas Revier*
“Policing Pain: Opioids, Crisis, and a Shifting War on Drugs”
*Sociology: Prof. Joshua M. Price

L. Jack Rhodes*
“The Role of Visual Features in the Affective Categorization of Briefly Presented Naturalistic Scenes”
*Cognitive Psychology: Prof. Vladimir Miskovic

Julie Lynn Richards
“Educational Incentive for Oncology Patients Undergoing Chemotherapy Diagnosed with Febrile Neutropenia”
*Family Health NP: Prof. Julie L. Richards

Erin Paige Riggs
“An Archaeology of Refugee Resettlement: Delhi After Partition”
*Anthropology: Prof. Randall H. McGuire

Deirdre Ann Riley
“Purgatory of the Mind: Crises of Self-Perception in Fourteenth-Century Middle English Texts”
*English: Prof. Marilynn R. Desmond

Ada Robinson-Perez**
“Exploring Racial Microaggressions and the Intersectionality of Black Masculinity: Reconstructing Art and Mental Health for Structural Change”
*Community Research and Action: Prof. Lubna Chaudhry

Ana Maria Rodriguez
“The Impact of ADHD and Conduct Disorder on Treatment Effects for Adolescents Participating in a Brief Intervention Aimed at Reducing Alcohol Use and Violence”
*Community Research and Action: Prof. Nadine Mastroelo

Katia Mariel Rojas Garcia
“An Industry-Focused Maturity Assessment Tool — Project Management Practices and Key Factors for Success in FDA Human Factors Validations of Medical Devices and Combination Products”
*Industrial and Systems Engineering: Prof. Daryl Santos

Sung Hee Ru
“China’s Incorporation Process into the Capitalist World-Economy, 1780s-1890s”
*Sociology: Prof. Thomas Owens

Maria Virginia Ruiz Blondet
“Behavioral and Neural Correlates of Visual and Auditory Hallucinations Elicited through Classical Conditioning”
*Cognitive Psychology: Prof. Vladimir Miskovic

Angela Ellen Runciman
“An Unhistoric Becoming: Reading George Eliot’s Middlemarch with Walter Benjamin”
*Comparative Literature: Prof. Jessie Reeder

Mustafa Salman
“Application of Multiple Model Filters to Fault Diagnosis and Islanding Detection in Electric Grids”
*Electrical and Computer Engineering: Prof. N. E. Wu

Lauren Sartner
“One of the Good Ones”
*English: Prof. Joseph D. Weil

Richard Jonathan Sauceedo
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ABOUT BINGHAMTON UNIVERSITY

Binghamton University opened its doors as Triple Cities College in 1946 to serve the needs of local veterans returning from service in World War II. Originally located in Endicott, five miles west of the present campus, the fledgling school was a branch of Syracuse University. Four years later, when the college was incorporated into the State University of New York, it was renamed Harpur College in honor of Robert Harpur, a Colonial teacher, patriot and pioneer, who devoted his later years to settling the area around Binghamton.

Until 1953, Harpur College was one of only two public liberal arts colleges in the state. In 1961, the campus was moved across the Susquehanna River to Vestal. Growing enrollment and a reputation for excellence soon led to the selection of Harpur College as one of four doctorate-granting university centers in the state system. In 1965, the campus was formally designated the State of New York at Binghamton. Binghamton University was adopted as its informal name in 1992.

Today, Binghamton University is known for the excellence of its students, faculty, staff and programs, and enrolls over 18,000 students in programs leading to bachelor’s, master’s and doctoral degrees. More than 14,000 students are undergraduates and nearly 4,000 are graduate students. Its curriculum, founded on the liberal arts, has expanded to include selected professional and graduate programs, including the Doctor of Pharmacy (PharmD) program launched in fall 2017.

The University offers more than 100 major degree programs across its academic divisions and is recognized as the most selective and prestigious university in the SUNY system. College guides such as the Fiske Guide to Colleges have dubbed Binghamton a “premier public university in the Northeast.” Students actively take part in internships, education-abroad programs, honors programs, Division I athletics and many of the 450+ student organizations on campus. They enjoy attractive, comfortable living-and-learning residences, and they give faculty high marks for being approachable and inspirational.

Binghamton’s faculty and students come from more than 100 countries, bringing with them many different cultures and backgrounds and representing a wealth of ideas. It has an excellent research library, outstanding computer facilities, a superb performing arts center, a teaching greenhouse, a 190-acre Nature Preserve, an Events Center and more.

Binghamton is a highly regarded research university, yet, at the same time, is as accessible as a smaller school. Retention is well above national averages, and more undergraduates are admitted into nationally ranked, rigorous graduate programs than is the norm nationally for public research universities.
ACADEMIC REGALIA

The shapes, colors and trim of gowns, hoods and caps indicate the academic degree, the school granting the degree and the subject of study. The higher the degree, the more elaborate the costume. Gowns are distinguished by the shape of the sleeves. Bachelors’ gowns have pointed sleeves, masters’ have sleeves cut square at the back and doctors’ gowns also have velvet facing and three velvet bars on the sleeves that are either black or a color indicating the degree: dark blue for philosophy; light blue for education; golden yellow for science; pink for music; orange for engineering; brown for fine arts; white for arts, letters and humanities; and copper for economics.

Hoods are distinguished by length, lined with the official color(s) of the conferring institution and trimmed with a color indicating the subject in which the degree is granted. Blue and gold, the color of the State University of New York, are in the hoods of all those who will receive a doctorate today, including honorary degree recipients.

The cap or mortarboard is black, with a long tassel that may be black or the color appropriate to the subject. Only doctors’ caps may have a tassel of gold thread. It is customary for graduates to move tassels from right to left after degrees are conferred.
Binghamton University attracts students and scholars from across New York state, the country and the world. The international flags that hang in the Events Center during Commencement ceremonies and at other venues on campus during the academic year represent the more than 100 nations our students hail from. Flown since Commencement 1997, these flags are an important visual reminder that Binghamton University’s strength lies in its people who represent a great variety of cultures, backgrounds and ideas.

THE UNIVERSITY MACE

A gift of the Class of 1993, the University mace represents the magisterial authority of the University as an institution of higher learning. Such symbols go far back into antiquity, their use proclaiming the power of the holder. Today, the mace stands for the pre-eminence of the world of knowledge.

Professor John Thomson of the Department of Art and Design undertook the commission by the Class of 1993 for the University mace. Nearly three feet long, it is made of hand-turned, polished walnut. The spherical head has two inset cast-bronze facets in the shape of medallions. One bears the seal of Binghamton University. The other carries a high-relief rendering of Pegasus, the flying horse of Greek mythology, which as a part of the seal symbolizes the University’s aspirations for its future.
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IN THE ROLLING HILLS OF BINGHAMTON

Words by Xin Engel, music by David Engel ’86, arrangement by Daniel Fabricius

In the rolling hills of Binghamton
’Neath everchanging skies
Where two gently flowing rivers meet,
We form our cherished ties.

Together we spend these years,
United in our aim.
Through our bold pursuit of excellence,
We proudly bear your name.

Chorus:
O Binghamton, we carry thee
With us for all our time
And through us individually
Forever may you shine.