

Graduate Student Celebration

December 9, 2016

Hager-Lubbers Exhibition Hall
Charles W. Loosemore Auditorium

Presented by The Graduate School
318C DeVos Center
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in collaboration with the
Graduate Student Association (GSA)

Program

5:00 PM: Refreshments and Social Hour (Hager-Lubbers Exhibition Hall)

6:00 PM: Awards Presentation Ceremony (Loosemore Auditorium)

Introduction:

Frederick Lawrence, GSA President

Welcome:

Dr. Jeffrey A. Potteiger, Dean of The Graduate School

Graduate Dean's Citation Awards Recognition:

Dr. Jeffrey A. Potteiger, Dean of The Graduate School,
Dr. Mark R. Luttenton, Associate Dean of The Graduate School,
Steven Lipnicki, Assistant Dean of Students
and Jennifer Palm, Assistant to The Graduate School

Graduate Student Association Faculty Awards Recognition:

Frederick Lawrence, GSA President,
Kathryn Christopher, GSA Vice President,
and Blaine Harvey, GSA Finance Officer

*Award recipients, please note: group photos will be taken
immediately following the award ceremony.*

Welcome!

Dear members and friends of Grand Valley's graduate community,

Tonight we have the great pleasure to honor individuals who have distinguished themselves in graduate education at Grand Valley State University. The Dean's Citation Awards for Academic Excellence are given to recognize the accomplishments of our students and faculty and celebrate their achievements. First held in 2006, this proud Grand Valley State University tradition began thanks to the combined efforts of the University Graduate Council and the Graduate Program Directors. The Graduate School and the Graduate Student Association serve as co-hosts for this evening's activities.

The Dean's Citation Awards recognize excellence in academic performance in several categories. Graduate students are nominated for these awards by staff or faculty members, advisors, graduate program directors, and departmental chair or school directors. The Dean of The Graduate School reviews the nominees and approves the final selection. Each recipient receives a certificate of recognition and a graduate honors cord that may be worn at commencement. Additionally, we honor several of our graduate faculty members who have distinguished themselves in mentoring and serving our students at Grand Valley. Their dedication helps to create a rich and vibrant learning environment.

Grand Valley State University is proud of the accomplishments of these graduate students and faculty members. I wish each of our award winners a successful future.

Congratulations to all!



Jeffrey A. Potteiger, Ph.D., FACSM
Dean of The Graduate School
Grand Valley State University

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GRADUATE DEAN'S CITATION RECIPIENTS
Fall 2016

ACADEMIC EXCELLENCE IN THE DEGREE PROGRAM

Seidman College of Business

- ❖ Danica M. deWaha, Accounting
- ❖ Nicole A. Hunter, Business Administration
- ❖ Jennifer A. McMahan, Taxation

College of Community and Public Service

- ❖ Meredith J. Welsh, Health Administration
- ❖ Veronica S. Minard, Philanthropy and Nonprofit Leadership
- ❖ Julie K. Mavis, Public Administration

College of Education

- ❖ Paul E. Bylsma, Higher Education
- ❖ Kelsey N. Younkin, School Counseling

Padnos College of Engineering and Computing

- ❖ Christopher A. Taylor, Computer Information Systems

College of Health Professions

- ❖ Kerry A. MacDonald, Occupational Therapy
- ❖ Allison L. Desautels, Physician Assistant Studies
- ❖ Ana C. Thrall, Speech-Language Pathology

College of Liberal Arts and Sciences

- ❖ Divyaa Srinivasan, Cell and Molecular Biology
- ❖ Amanda J. Lawrence, Communications
- ❖ Robert B. Chapman, English

Kirkhof College of Nursing

- ❖ Julie A. Bulson, Nursing (Doctorate)
- ❖ Megan E. Pashnik, Nursing (Masters)

OUTSTANDING MASTER'S THESIS

College of Education

- ❖ Tiffany L. Steele, Higher Education

Padnos College of Engineering and Computing

- ❖ Rahat Sultana, Engineering

College of Liberal Arts and Sciences

- ❖ Devin N. Jones, Biology
- ❖ Meagan N. Treadway, Cell and Molecular Biology
- ❖ Stacey L. Fitzpatrick, English

OUTSTANDING FINAL PROJECT

College of Community and Public Service

- ❖ Emilia C. Wall, Health Administration
- ❖ Katie L. Erickson, Public Administration

College of Education

- ❖ Cynthia C. Bartman, Higher Education

Padnos College of Engineering and Computing

- ❖ Roland P. Heusser and Camila Penaloza, Computer Information Systems

Kirkhof College of Nursing

- ❖ Katherine E. Hoffhines, Nursing (Masters)

OUTSTANDING PUBLICATION

College of Education

- ❖ Ja'Kia Marie, Higher Education

Padnos College of Engineering and Computing

- ❖ Robert L. Esser, Engineering

College of Liberal Arts and Sciences

- ❖ Deborah K. Dila, Biology

EXCELLENCE IN SERVICE TO THE COMMUNITY OR PROFESSION

College of Community and Public Service

- ❖ Marcus A. Manders, Health Administration

College of Education

- ❖ Stephanie N. Hallgren, Literacy Studies

College of Health Professions

- ❖ Blake D. Geschke, Physician Assistant Studies

EXCELLENCE IN LEADERSHIP AND SERVICE TO GVSU

Seidman College of Business

- ❖ Adil T. Shah, Accounting

College of Community and Public Service

- ❖ Jerome Obligado, Health Administration
- ❖ Shinyoung Park, Public Administration

College of Education

- ❖ Katherine A. Mueller, Literacy Studies

College of Health Professions

- ❖ Samara G. Spotts, Physician Assistant Studies

PROMOTING DIVERSITY AND INCLUSION AT GVSU

College of Education

- ❖ Cynthia C. Bartman, Higher Education

College of Health Professions

- ❖ Brett J. Stacer, Physician Assistant Studies

MAGS DISTINGUISHED THESIS NOMINEES

College of Education

- ❖ Theresa D. Lyon, Higher Education

Padnos College of Engineering and Computing

- ❖ Ravi Bhatta, Engineering

*Congratulations to all of the Fall 2016
Graduate Dean's Citation Award Recipients!*

**GRADUATE STUDENT ASSOCIATION FACULTY AWARDS
Fall 2016**

OUTSTANDING FACULTY MENTOR AWARD

College of Education

- ❖ Karyn Rabourn, College of Education

College of Health Professions

- ❖ Laura Lenkey, Department of Communication Science Disorders

KIMBOKO INCLUSION AWARD

College of Community and Public Service

- ❖ Lara Jaskiewicz, School of Public, Nonprofit and Health Administration

*Congratulations to the Fall 2016
Graduate Student Association Faculty Award Recipients!*

**GRADUATE DEAN'S CITATION FOR
ACADEMIC EXCELLENCE IN THE DEGREE PROGRAM
Fall 2016**

Seidman College of Business

❖ **Danica M. deWaha, Master of Science in Accounting**

Danica received her BBA from Grand Valley with a double major in Accounting and International Business. She studied abroad in Chile as an undergraduate student and in England as a graduate student. While finishing her masters, Danica has also managed to take and pass all four parts of the CPA exam this semester. This is a tremendous accomplishment and unusual to accomplish in such a short time period. She also served as a graduate and despite a rigorous schedule, Danica has always come to class fully prepared and able to make significant contributions to class. Danica will start her public accounting career in January with PricewaterhouseCooper.

❖ **Nicole A. Hunter, Master of Business Administration**

Nicole earned a BBA from Grand Valley State University in 2015 with majors in Marketing and Management while earning cum laude honors. She matriculated directly into the full-time integrated Master of Business Administration (FIMBA) graduating in August 2016 while maintaining academic excellence. During her time in the FIMBA program she earned a much coveted fellowship with Steelcase and successfully balanced her studies with a demanding professional role. Upon graduation she earned a full-time role at Herman Miller where she serves as a Program Manager for Sales Readiness and Enablement.

❖ **Jennifer A. McMahan, Master of Science in Taxation**

The School of Accounting faculty have nominated Jennifer as the outstanding MST student. Jennifer has been a standout in the MST program while also working full-time in her career. She graduated magna cum laude from the University of Central Florida with a Bachelor's degree in Psychology. She earned her MBA from Boise State University in 2012. She is a CPA and CMA, and is employed as a Senior Staff Accountant at Crowe Horwath, CPA's specializing in C corporation advisory and compliance services. The Taxation

Faculty greatly appreciate Jennifer's contributions to her classes as well as the Taxation program.

College of Community and Public Service

❖ **Meredith J. Welsh, Master of Health Administration**

Meredith accepted an entry-level management position with the Mary Free Bed Rehabilitation Hospital a year prior to her graduation, a testament to her drive and efforts. Faculty describe her as a bright, dedicated and engaged graduate student from the beginning of her program. In individual and group work her efforts lead to "unparalleled academic success." Meredith is also an active volunteer with the American College of Healthcare Executives, Kids Food Basket, and a member of the Healthcare Professional Graduate Student Alliance. The faculty wish her well as she graduates and continues her professional career.

❖ **Veronica S. Minard, Master of Philanthropy and Nonprofit Leadership**

Veronica is the first person to graduate with the new Masters of Philanthropy and Nonprofit Leadership degree. Throughout her entire GVSU graduate work, she has maintained a full-time job in the nonprofit sector, immediately allowing her to translate her new skills to practical application. Faculty expressed that her work in the classroom has been exceptional and that she is always an active participant in classroom discussions. Veronica is also active in the community at the Girl Scouts of the United States and a volunteer troop co-leader since 2014. She has also given her time and talents as a volunteer grant writer, presenter and consultant for various local nonprofits.

❖ **Julie K. Mavis, Master of Public Administration**

Julie is described by faculty as one of the top performing students in the Public Administration program, as well as a true asset to GVSU and a wonderful addition to SPNHA's alumni. She currently works as an Area Administrator for the Kalamazoo area Disability Determination Service where she serves on Executive Council, the Succession Planning Team, and the DDS/SSA Quality Committee. Julie is a part of the Pi Alpha Honor Society and has been a mentor for both the Michigan Department of Human Services Emerging Leader Program and the National Kidney Foundation. Faculty

have praised her Economic and Community Development research paper as well as her analysis of the SSA's Return to Work policy within the state of Michigan.

College of Education

❖ **Paul E. Bylsma, Master of Education in Higher Education**

As a student, Paul engages actively with scholarship, his peers and faculty colleagues. As a full-time professional at Calvin College, he brings a perspective into the classroom that understands alternate institutional cultures and organizational structures. He consistently exhibits dedication to academic excellence and always tries to enhance his own and colleagues' understanding of varied worldviews. Faculty explain that Paul challenges them to work harder and that he is the type of student that encourages growth in pedagogical efforts. He is also described as respected by his peers and always offering thoughtful, constructive, and well-reasoned critique of practice and scholarship in the field.

❖ **Kelsey N. Younkin, Master of Education in School Counseling**

Throughout her time at Grand Valley, Kelsey worked to design a unique internship experience through the Department of Defense Association (DoDEA) in Weisbaden, Germany. She advocated for this experience and helped simplify the collaboration process between the DoDEA and Grand Valley State University College of Education. Her investment in this experience has opened up a new avenue for others to consider when considering internship placements. Faculty have expressed that Kelsey has a way of engaging students no matter where they are that recognizes their worth and value above all else and inspires them to self-improvement. They feel that her portfolio documenting her varied practicum and internship experiences, as well as quality work samples, is evidence of her academic excellence.

Padnos College of Engineering and Computing

❖ **Christopher A. Taylor, Master of Science in Computer Information Systems**

Christopher is currently completing his master's project and will graduate with a perfect 4.0 GPA. The faculty noted that Christopher goes well above and beyond in his course work, project specifications, and participation in the classroom. After double majoring in Biomedical Science and Chemistry during undergraduate studies, Christopher began exploring computational chemistry, and without any formal education in computer science, decided to enroll in the Computer Information Systems graduate program. He has excelled in the program beyond expectations, bringing a new perspective to the classroom with his unique educational background.

College of Health Professions

❖ **Kerry A. MacDonald, Master of Science in Occupational Therapy**

Throughout Kerry's time in her program, she has been actively involved with Safe Haven Ministries – a local organization that provides support and professional services to survivors of domestic violence. She is also trained through Sexual Aggression Peer Advocated to aid survivors of sexual aggression as well as facilitate the educational programs for others. Additionally, Kerry has been noted for her academic excellence; she is one of the top students in her class and is a member of the Pi Theta Epsilon honor society. She has been described by faculty as an exemplar of professionalism, as well as a leader and advocate in the community.

❖ **Allison L. Desautels, Master of Physician Assistant Studies**

Allison has been described as one of the top-performing students in her class by her professors. Faculty has also spoken to her academic achievements not only in the classroom, but also in the clinic. She is a dedicated learner with the highest GPA in her class, a testament to her academic excellence. She serves as the Richard P. Clodfelder Student Society Fundraising Chair as well as on the Physician Assistant Advisory Committee. Allison has accepted a position in the Spectrum Health Emergency Department with Emergency Care Specialists and will begin her work in January.

❖ **Ana C. Thrall, Master of Science in Speech-Language Pathology**

Ana has excelled academically during her time in the Speech-Language Pathology program, earning a cumulative GPA of 4.0. Additionally, her clinical preceptors have noted how much they have enjoyed working with Ana. Outside of the classroom and clinical placements, Ana has presented research at GVSU's Student Scholars Day and at the American Speech-Language-Hearing Association Annual Convention. Faculty in the program state that Ana is the kind of person who will make an important impact on her clients' lives and make an excellent Speech-Language Pathologist.

College of Liberal Arts and Sciences

❖ **Divyaa Srinivasan, Master of Science in Cell and Molecular Biology**

Divyaa is excelled in her program and did so with élan, as described by faculty. She chose to study at GVSU, traveling from India, inspired by home remedies of eating raw leaves to ward of sickness. She desired to research if fleshly leaves were helpful in attacking harmful micro-organisms, and focused her research on microbial diversity, immunology, diagnosis and treatment. Divyaa spent long hours in the laboratory or writing manuscripts and always had an infectious enthusiasm. Faculty have recognized her academic achievements as well as her service in enhancing the image and reputation of the department and GVSU.

❖ **Amanda J. Lawrence, Master of Science in Communications**

Amanda is student in the Master of Science in Communications program. Graduating with a 4.0 GPA, Amanda's academic performance exceeded her faculty's expectations. Her vast knowledge of communication theory and skillful application of principals to real world, problem-solving situations make her a stand-out student. Amanda's professors feel that she will be a major contributor to the field of communication throughout her career endeavors. Amanda recently accepted the position of Director of Alumni Relations at Cornerstone University, where she is also an instructor of Communication and Culture.

❖ **Robert B. Chapman, Master of Arts in English**

Robert is described by faculty as a tenacious student, always challenging his readers and the status quo, and a promising scholar with an ability to argue passionately without sacrificing intellectual rigor. Robert continually helps his fellow students to clearer, more refined articulation of their own ideas. Faculty have expressed that his unflagging curiosity is his greatest strength and that he consistently demonstrates a commitment to excellence in his studies. Robert served as a graduate assistant for the Shakespeare Festival on campus, further focusing and developing his thesis work on Renaissance and Medieval Studies, in which he plans to pursue a Ph.D.

Kirkhof College of Nursing

❖ **Julie A. Bulson, Doctor of Nursing Practice**

Julie began her Doctor of Nursing Practice three years ago and has proven to be an excellent student. Faculty have described her as a mature and contextual thinker who is able to strategize and operate from a system's perspective. During her time in the program Julie traveled to Israel where she and fellow members of the Organization of Nurse Executives evaluated the country's health care system. Additionally, she recently became nationally certified by the American Credentialing Center of Nursing as a Nurse Executive. Julie has been recognized as a leader in her program not only by faculty but by her student peers.

❖ **Megan E. Pashnik, Master of Science in Nursing**

Megan is a student in the Master of Science in Nursing program who is described by faculty as being organized, efficient, and hardworking. Megan's dedication to her graduate program has been particularly displayed through her scholarly project work. Her maturity and enthusiasm for the profession make her a role model amongst fellow students, and her academic performance is indicative of a successful career in nursing. Megan recently accepted the position of Clinical Nurse Leader in Critical Care at Mercy Health Saint Mary's and just passed her CNL exam.

**GRADUATE DEAN'S CITATIONS FOR
OUTSTANDING MASTER'S THESIS
Fall 2016**

College of Education

- ❖ **Tiffany L. Steele, Master of Education in Higher Education**
 - **Thesis Title:** Retaining Staff Members of Color at a Midwestern Predominantly White Institution
 - **Thesis Committee:** Dr. Donald J. Mitchell (Chair) – College of Education, Dr. Chasity Bailey-Fakhoury – College of Education, and Dr. Olivia Williams – College of Education

While much has been written about retaining students and faculty of color at predominantly White institutions, there is limited literature on the retention of staff of color at predominantly White institutions—Tiffany's thesis fills that void and makes a significant contribution to the field.

Tiffany's study is significant and she does a nice job highlighting its significance in chapter one of her thesis. She highlights the need for documenting the experiences of staff of color and to improve the retention of staff of color for three reasons: 1) students benefit from diverse staff, particularly students of color; 2) diverse perspectives improve the workplace; and, 3) retaining staff, and in particular, staff of color, reduces financial loss.

Tiffany's thesis is strong, which comes from the way her theoretical framework is woven throughout the document and shows up in her interpretations and conclusion. Tiffany's thesis is well written, clear, and well organized. She is currently a Ph.D. student at The Ohio State University in the Higher Education Student Affairs program.

Tiffany's abstract appears on the following page.

ABSTRACT

There continues to be a gap between the growing multicultural student body and predominantly White faculty and staff members who work with students. One factor in increasing the likelihood of persistence in college for minoritized students is the presence of a mentor with a similar ethnic background. Nevertheless, as of 2004, the populations of faculty, staff and administrators are still disproportionately dominated by White Americans. This study investigated how a university or college can better retain staff members of color. The participants were current and past staff members of color who worked at one university within the Midwestern United States. Data were collected through semi-structured interviews and were coded and then categorized into overarching themes that emerged from the data. Findings from this study contributed to the limited research on professional staff members of color in higher education. A majority of the current research focused solely on the hardships of faculty of color without acknowledging professional staff members of color. Through this study, I sought to understand the difficulties faced by staff members of color and what circumstances led staff members of color to leave or stay at their institution. I now also have a better understanding of what a university might do to ensure staff members of color feel supported while working within an institution.

Padnos College of Engineering and Computing

❖ **Rahat Sultana, Master of Science in Engineering**

- **Thesis Title:** Application of Genetic Algorithm in Multi-Objective Optimization of an Indeterminate Structure with Discontinuous Space for Support Locations
- **Thesis Committee:** Dr. Shabbir Choudhuri (Chair) – School of Engineering, Dr. Wendy Reoffer – School of Engineering, and Dr. Lindsay Corneal – School of Engineering

In this outstanding research Rahat has developed a new coding algorithm which has shown faster convergence to a better optimal solution for support location problems in mechanical structure. Her work has already produced an international conference publication presented at the International Conference on Applied Mathematics and Mechanics, held in Bangkok on Oct 29-30, 2016: *Comparison of Coding Methods for a Genetic Algorithm in Multi-Objective Optimization of an Indeterminate Structure* with co-authors Dr. Reoffer and Dr. Choudhuri.

Rahat's research and thesis may also yield another journal publication in the field of optimization. As a Graduate Assistant, she contributed to research on penalty functions applied to a constrained optimization problem as well as formulated and implemented a FEA integrated Discretized coding algorithm to handle constraint in GA for a class of optimization problem.

Rahat is currently an Affiliate Faculty for Integrated Engineering at GVSU.

ABSTRACT

In this thesis, an indeterminate structure was developed with multiple competing objectives including the equalization of the load distribution among the supports while maximizing the stability of the structure. Two different coding algorithms named "Continuous Method" and "Discretized Method" were used to solve the optimal support locations using Genetic Algorithms (GAs). In the first approach, a continuous solution space was considered to find optimal support locations. The failure of the continuous method to stick to the acceptable optimal solution led towards the development of the second method. The latter approach divided the solution space into rectangular grids, and GAs acted on the index number of the nodal points to converge to the optimality. The average value of the objective function in the discretized method was found to be 0.147 which was almost one-third of that obtained by the continuous method. The comparison based on individual components of the objective function also proved that the proposed method outperformed the continuous method. The discretized method also showed faster convergence to the optima. Three circular discontinuities were added to the structure to make it more realistic and three different penalty functions named flat, linear and non-linear penalty were used to handle the constraints. The performance of the two methods was observed with the penalty functions while increasing the radius of the circles by 25% and 50% which showed no significant difference. Later, the discretized method was coded to eliminate the discontinuous area from the solution space which made the application of the penalty functions redundant. A paired t-test ($\alpha=5\%$) showed no statistical difference between these two methods. Finally, to make the proposed method compatible with irregular shaped discontinuous areas, "FEA Integrated Coded Discretized Method (FEAICDM)" was developed. The manual elimination of the infeasible areas from the candidate surface was replaced by the nodal points of the mesh generated by Solid Works. A paired t-test ($\alpha=5\%$) showed no statistical difference between these two methods. Though FEAICDM was applied only to a class of problem, it can be concluded that FEAICDM is more robust and efficient than the continuous method for a class of constrained optimization problem.

College of Liberal Arts and Sciences

❖ **Devin N. Jones, Master of Science in Biology**

- **Thesis Title:** Trophic Transfer of a Naturally Occurring Algal Toxin from a Freshwater Lake to Little Brown Bats
- **Thesis Committee:** Dr. Amy Russell (Chair) – Department of Biology, Dr. Megan Woller-Skar – Department of Biology, and Dr. Maarten Vonhof – Western Michigan University

In her thesis, Devin addresses an important and heretofore unknown aspect of trophic transfer of an algal toxin to bats, as well as provides an excellent analysis of brown bat diet preferences. Her analysis revealed for the first time that little brown bats are predators of many disease vectors and agricultural and forestry pest insects.

One impact of Devin's work is to illuminate additional areas of the human economic system in which bats may be having a significant impact. The research team is currently finalizing a manuscript on these results that will be submitted to the journal *Acta Chiropterologica*, with Devin as first author. In science, success is often quantified using metrics such as grant funding, awards, and publications. Here, Devin has been setting the bar among her peers. One completed publication and two more in prep are noted above. Devin applied for external funding from Bat Conservation International and Sigma Xi, and was successful with the latter. In February of this year, she won the award for Outstanding Oral Presentation for her talk at the annual meeting of the Southeastern Bat Diversity Network; her first oral presentation at a scientific meeting.

Devin rose to meet the challenges of a detailed and multifaceted research project, and finished with a very strong thesis that is leading to multiple publications. She is currently a Ph.D. student in the Immunology and Infectious Disease Program at Montana State University.

Devin's abstract appears on the following page.

ABSTRACT

Microcystis aeruginosa is a species of cyanobacteria capable of producing a hepatotoxin called microcystin. As toxic *M. aeruginosa* overwinters in the sediments of lakes, it is ingested by some mayfly larvae, such as those of *Hexagenia* spp., and thus microcystin bioaccumulates in these insects. When *Hexagenia* emerge from lakes to reproduce, they provide an abundant, albeit temporary, food source for many terrestrial organisms such as bats. Little brown bats, *Myotis lucifugus*, likely feed opportunistically on aquatic insects. To test if microcystin moves from aquatic to terrestrial ecosystems via trophic transfer, we 1) tested bat feces for the presence of *Hexagenia* mayflies and 2) tested bat livers and feces for microcystin. In June 2014, in correspondence with the *Hexagenia* emergence, bat feces were collected from underneath a maternity roost near Little Traverse Lake (Leelanau County, MI). On 20 and 27 June we caught 19 female *M. lucifugus*, which were euthanized, and collected their livers and feces. DNA was extracted from feces, amplified with a Polymerase Chain Reaction (PCR), and sequenced. Concentrations of microcystin in liver tissue and feces were determined using an enzymelinked immunosorbent assay (ELISA) and liquid chromatography with tandem mass spectrometry (LC-MS/MS). *Hexagenia* were present in the diet of *M. lucifugus* and the most likely source of microcystin. Our analyses reveal that microcystin was also present, with higher concentrations in the bat feces than the livers. Additionally, histopathology results of three bat livers with highest concentrations of microcystin show little to no cytological damage from the toxin. From these data, it appears that *M. lucifugus* are not highly affected by the ingestion of microcystin.

❖ **Meagan N. Treadway, Master of Science in Cell and Molecular Biology**

- **Thesis Title:** Inquiry-Based Biotechnology Education for Kent Intermediate School District Early College Program
- **Thesis Committee:** Dr. Deborah Herrington (Chair) – Department of Chemistry, Dr. Patrick Thorpe – Department of Biology/Department of Cell and Molecular Biology, and Dr. Douglas Busman – College of Education

Meagan's research provides a sample inquiry-based biotechnology curriculum that results in content knowledge gains, and with further work on the affective components important to cognitive growth, displays potential for even larger content knowledge gains and increased student motivation toward science learning.

Her mentor noted that the development, piloting, revision, and implementation of a quality, inquiry-based unit of instruction in the area of biotechnology is itself a substantial accomplishment. However, Meagan was

also able to collect data to examine its impact on students' content knowledge and motivation towards science learning.

In the course of her thesis research, Meagan became Associate Registrar at GVSU and the Department of Cell and Molecular Biology commend her for completing her thesis research and writing the thesis while working in a demanding job. The department recognizes Meagan's research and academic achievements in a distinguished career as both an undergraduate and graduate CMB major at GVSU.

In addition to her degrees in CMB, Meagan also holds an additional bachelor's degree in Criminal Justice, a Master of Education in Higher Education and an Educational Specialist degree in Leadership.

ABSTRACT

Growth in the field of biotechnology, combined with the ability to access information instantaneously, requires a new model of science education that will nurture deeper understanding and higher order thinking to develop a scientifically literate population. Inquiry-based learning is a student-centered model built on the theoretical framework of constructivism, which allows students to learn in a way that reflects how scientists come to understand the natural world. This project aimed to address the need for an inquiry-based biotechnology curriculum in a local Early College program by developing, piloting, revising, and implementing an inquiry-based biotechnology unit while simultaneously evaluating the impact of this curriculum on content knowledge and students' motivation toward science learning. Results revealed that student assignment scores were consistent with a B-average and performance on the final presentation was consistent with an A-average, while content knowledge increased approximately 9 to 19 percentage points comparing pretest and posttest. Overall, using the Student Motivation Towards Learning survey, we did not see any measurable changes in students' motivation toward science learning except for a slight decrease in self-efficacy, which could be reasonably expected given student discomfort experiencing both a novel curriculum and pedagogy. Qualitative student feedback, however, was positive regarding independence, accountability, and group discussion and students displayed a high level of enjoyment with the hands-on activities. Thus, this project resulted in a sample inquiry-based biotechnology curriculum unity that produced reasonable gains content knowledge, and with further work on the affective components important to cognitive growth, displays potential for even larger content knowledge gains and increased student motivation toward science learning.

❖ **Stacey L. Fitzpatrick, Master of Arts in English**

- **Thesis Title:** Chance, Chaos, and Chloral: Lily Bart Gambles It All in *The House of Mirth*
- **Thesis Committee:** Dr. Ashley Shannon (Chair) – Department of English, Dr. Jo Miller – Department of English, and Dr. Avis Hewitt – Department of English

Stacey thesis is an innovative look at Edith Wharton's novel, *The House of Mirth*, appraising it from a truly unique perspective. Combining extensive historical and sociological work with literary analysis, Stacey argues that understanding the psychology of gambling is necessary to truly understand the mindset of Wharton's tragic heroine Lily Bart. No other study of *The House of Mirth* has considered the novel in this light, yet it is an approach that makes instant intuitive sense given the historical context and Stacey's detailed literary analysis. The argument in Stacey's thesis represents an innovative, insightful, and clear eyed—yet also deeply compassionate—treatment of the character Lily Bart, the issue of gambling, and of the novel as a whole.

Stacey is an adult educator with over 30 years of experience. She currently holds a Master of Arts in Education as well. Stacey has filled a variety of roles in education, from instructor to program chair, all while maintaining active service to students on committees/boards and state-wide planning.

Stacey's abstract appears on the following page.

ABSTRACT

Much of traditional literary study of Lily Bart's struggles and social failures depicted in *The House of Mirth* focuses on her fear of losing her freewill, her reliance on fate or Fortuna, and her dislike of the options set before her. In this paper I will use several important scenes to illustrate that Lily's penchant for gambling more accurately explains her behavior and rejection of social and cultural expectations. Preferring her freedom and weighing her options of marriage for power or a financially secure lifestyle, Lily considers them as a gambler, balancing her marriage prospects against her love for excitement and impulsive risk-taking.

In spite of knowing her livelihood, lifestyle, and her financial security are at risk, she purposely thwarts several opportunities to marry. When loss of her freedom fights with cultural expectations for marriage Lily gambles that her calculated risk to live as an independent single woman will be successful. In Lily's eyes there are no rules for her as she can charm herself out of the "bad luck" situations as they arise.

Victorian novels isolate gambling as a seductive obsession, with losses going beyond one individual to family, business, and community. Results of unhappy marriages also go beyond two individuals and Lily is willing to gamble with her prospects in the marriage marketplace because she trusts her skills and experiences in such a way that she feels she has a better than 50/50 chance of winning the outcome she wants. Down to her very last action in the book, she embodies the gambler's willingness to throw it all away. In this book, Edith Wharton uses Lily to demonstrate, "her bleakness of vision in the face of a totalizing system she finds at once detestable and inevitable" by allowing Lily to gamble with marriage prospects, social relationships, and ultimately her life.

**GRADUATE DEAN'S CITATION FOR
OUTSTANDING FINAL PROJECT
Fall 2016**

College of Community and Public Service

❖ **Emilia C. Wall, Master of Health Administration**

- **Project Title:** Integrating a Community Based Approach to Patient Discharge: Analysis of the Maryland Person Centered Discharge Program
- **Project Advisor:** Dr. Priscilla Kimboko – School of Public, Nonprofit and Health Administration

Emilia completed her final project on the Maryland Patient-Centered Discharge program, a demonstration program intended to meet the Centers for Medicare and Medicaid Services (CMS) policies directed at reducing the number of patients readmitted to hospitals for the same health issue. Her research reviews the factors that commonly contribute to hospital readmission and analyzes Maryland's program design, focusing on the use of care coordinators. She contrasts a model that is utilized by the Maryland Patient-Centered Discharge Program with a model in Boston that focuses on redesigning the discharge process. Emilia's strong competencies in policy analysis and written communication are demonstrated through her final project paper.

❖ **Katie L. Erickson, Master of Public Administration**

- **Project Title:** Asset Management
- **Project Advisor:** Dr. Donijo Robbins – School of Public, Nonprofit and Health Administration

Katie completed an analysis of the issues of asset management in local government, which was informed by her work with the city of Wyoming. Her project advocates for why asset management is needed in an era where infrastructure is often not in the forefront. Katie also discusses the implementation challenges that management systems in the public sector may face. Her final project resulted in a journal article in which she makes a compelling case for changes in local government in these areas. The faculty found Katie's work to be an exemplary project for the graduate program.

College of Education

❖ **Cynthia C. Bartman, Master of Education in Higher Education**

- **Project Title:** Community Based Mentoring of Students of Color in Higher Education
- **Project Advisor:** Dr. Chasity Bailey-Fakhoury – College of Education

Cynthia understands the vital role that communities of color can play, so she partnered with Predominantly White Institutions (PWIs) to create a community based mentoring model that could be adopted by GVSU or any similarly-situated institution. Faculty express that Cynthia's use of Critical Race Theory and Culturally Relevant Pedagogy along with her thoughtful and critical attention to grounding the project's components in the existing body of research, makes her project an exemplar for other PWIs. According to faculty members, she is an example of the type of change they hope to effect in their students.

Padnos College of Engineering and Computing

The School of Computing and Information Systems has selected two recipients of this semester's Outstanding Final Project Award as part of a group project.

❖ **Roland P. Heusser and Camila Penaloza, Master of Science in Computer Information Systems**

- **Project Title:** Laker Mobile 2.0
- **Project Advisor:** Dr. Jonathan Engelsma – School of Computing and Information Systems

❖ **Roland P. Heusser, Master of Science in Computer Information Systems**

Roland is originally from Eschlikon, Switzerland and completed his undergraduate degree in Computer Science at Zurich University of Applied Sciences. While pursuing his undergraduate degree he worked for a small firm gaining practical experience and completed a semester at GVSU as a foreign exchange student. He is now a graduate assistant in the Mobile Applications and Services Lab at GVSU. During his time here, he has worked with several industry partners working on iOS and Android development.

❖ **Camila Penaloza, Master of Science in Computer Information Systems**

Camila is originally from Medellin, Colombia and came to Grand Valley to pursue a degree in Computer Information Systems. She is currently working as a Graduate Assistant in the Mobile Applications and Services Lab where she began working with Roland on their collaborative project creating GVSU's official campus app Laker Mobile 2.0.

This goal of this project was to renovate the mobile iOS app by following recent standards of the mobile application development industry. The app was entirely rewritten from the ground up and features a complete redesign of the user interface and user experience in order to be more appealing to the target audience. The application has had increased usability and retention of users. Faculty express that the app has had a high impact on the GVSU community, logging tens of thousands of user sessions since they launched it earlier this year.

Kirkhof College of Nursing

❖ **Katherine E. Hoffhines, Master of Science in Nursing**

- **Project Title:** Evidence Based Protocol: Depression Management in Primary Care
- **Project Advisor:** Dr. Rebecca Davis – Kirkhof College of Nursing

Katherine's project focused on care providers who were employed at a clinic that provided primary care services to vulnerable populations. She worked to improve the assessment of depression risk factors by creating an interprofessional team to address this clinical problem. Her work is expected to continue after she leaves the clinic. Her project advisor describes her work as well organized, appropriate in scope and sustainable and notes that Katherine's enthusiasm and professionalism largely contributed to her project's success.

**GRADUATE DEAN'S CITATION FOR
OUTSTANDING PUBLICATION
Fall 2016**

College of Education

- ❖ **Ja'Kia Marie, Master of Education in Higher Education**
 - **Publication Title:** Racial Identity Development of African American Students in Relation to Black Studies Courses
 - **Research Advisor:** Dr. Donald J. Mitchell – College of Education

In her paper, Ja'Kia explored reasons why undergraduate African American students decided to enroll or not enroll in Black Studies courses at a Midwestern public institution. She found Students who were Black Studies minors were more likely to feel a connection with the African Diaspora while those who had not taken a Black Studies course were more likely to claim themselves as Black verses African American. In addition, Black Studies minors reported a better sense of self and reported a more positive development of their racial identity compared to many of the students who did not take a Black Studies course. The publication extends from Ja'Kia's thesis work and is published in the Journal of Pan-African Studies, "a trans-disciplinary on-line peer reviewed scholarly journal devoted to the intellectual synthesis of research, scholarship and critical thought on the African experience around the world" (JPAS, n.d., para. 1).

Ja'Kia graduated from the Higher Education program in April 2016 and is currently a Ph.D. student studying Pan-African studies at the University of Louisville.

Ja'Kia's abstract appears on the following page.

ABSTRACT

The purpose of this study was to provide understanding of the reason why African American students choose to enroll or do not enroll in Black Studies courses and to explore the relationship between racial identity development and Black Studies programs. Using a phenomenological approach, African American undergraduate students who have: (a) participated in a student organization that focuses on the advancement of Blacks, an organization that was founded with the purpose of creating an organization for Black Americans, or an organization that focuses on racial equality; or (b) be a Black Studies minor were interviewed. Students who were Black Studies minors were more likely to feel a connection with the African Diaspora while those who had not taken a Black Studies course were more likely to claim themselves as Black versus African American. Black Studies minors reported a better sense of self and reported a more positive development of their racial identity compared to many of the students who did not take a Black Studies course.

Link to Ja’Kia’s thesis through GVSU’s academic repository ScholarWorks:
<http://scholarworks.gvsu.edu/theses/810/>

Padnos College of Engineering and Computing

❖ **Robert L. Esser, Master of Science in Engineering**

- **Publication Title:** Systematic Mechanistic Approach Improving Double Detent Design for Automotive Outside Mirror
- **Research Advisor:** Dr. Shabbir Choudhuri – School of Engineering

Robert is the first author of the paper with three co-authors from Magna Mirror Inc. and Dr. Choudhuri (full citation on next page). The paper was presented in International Conference on Applied System Innovation (ICASI 2016), held in Japan on May 28 – June 1. The paper received the best paper award in the conference.

Robert received the Wisner Graduate Fellowship from the school of engineering. The fellowship requires the fellow to solve a problem for an industrial partner. Robert chose to work with Magna Mirror and worked on eliminating the major design problem in the detent system of the automotive outside mirror.

Systematic Mechanistic Approach Improving Double Detent Design for Automotive Outside Mirror

Robert Esser^{1, a}, Ken Peterson^{2, b}, James A. Ruse^{3, c}, Justin Sobecki^{4, d} and Shabbir Choudhuri^{5, e, f}

¹MSE student, School of Engineering, Grand Valley State University, Grand Rapids, MI, USA

²Advanced Product Development Engineer, Magna Mirrors, Grand Rapids, MI, USA

³Senior Analysis Engineer, Magna Mirrors, Grand Rapids, MI, USA

⁴Advanced Product Development Engineer, Magna Mirrors, Grand Rapids, MI, USA

⁵Professor, School of Engineering, Grand Valley State University, Grand Rapids, MI, USA

ABSTRACT

A detent system is a device to mechanically resist motion of a rotating mechanism. A single catch detent system is implemented in an automotive side mirror which allowed the mirror to fold toward the body of the car by both manual and electrical means. Under certain situations, the detent was failing to lock the mirror when unfolded to driving position. A secondary detent added to this system addressed the issue and allowed the mirror to be locked in driving position regardless of whether the mirror was folded manually or electrically. However, the secondary detent spring plate was found to exhibit early fatigue failures as well as vibrational stability issues during product validation testing. A systematic mechanistic methodology was deployed to find the root-cause of these failure modes. Initial cause and effect investigations using various testing procedures, brainstorming sessions based upon the results of the testing, and fractographic examinations of the failed components isolated the root cause as a stress induced surface failure in the secondary detent spring plate. Further analysis using finite element analysis concluded that under a 500 N spring force, a 500 MPa stress was induced in the secondary detent. Even though, the stress is less than half of the stated ultimate tensile strength of the material, it was deduced that high stress concentration in certain areas of the detent plate-spring will cause early failure. The deduction was validated by observing micro-cracking at the suspected locations in many of the devices at an early stages of use. Vibrational experiments indicated that the detent surface contact area was insufficient to provide necessary frictional force to produce a stable image in the mirror. The findings were utilized to redesign a new design configuration that significantly increases cycle life and vibrational stability of the system. The new design was analyzed using finite element analysis and was found to have reduced the stress induced in the secondary detent surface by more than 90% as well as increased stability of the mirror in the secondary detent position.

College of Liberal Arts and Sciences

❖ **Deborah K. Dila, Master of Science in Biology**

- **Publication Title:** From Land to Lake: Contrasting Microbial Processes Across a Great Lakes Gradient of Organic Carbon and Inorganic Nutrient Inventories
- **Research Advisor:** Dr. Bopaiah Biddanda – Robert B. Annis Water Resources Institute

Deb successfully defended her Master's thesis for the Biology graduate program in August 2016. In her thesis, Deb reports that biological production is consistently higher in Muskegon Lake surface water than any of the other sites in her project study area along the Muskegon River watershed. She identified a host of factors – such as plant nutrients, light penetration for enhanced photosynthesis, phytoplankton biomass build-up, and time for invertebrate life-cycles to completion. All these factors converge to make Muskegon Lake estuary into a “Goldilocks Zone” of net biological productivity.

She published these findings in the *Journal of Great Lakes Research* (2015) – which the Biology Graduate Committee has evaluated this article and found it to be well-written, innovative, and to provide important insights into carbon cycling and climate change.

What is of particular interest is how key aspects of her thesis work have been continuing to be published in both education and outreach forums such as in *InterChange* and *Eos-AGU* – confirming the practical value of her findings to science, education and outreach. Few thesis findings result in so much continuing productivity of societal relevance.

Deb is currently a senior research specialist at University of Wisconsin-Milwaukee's School of Freshwater Sciences, where she continues to study water quality and microbial health of watersheds in the Great Lakes.

Deb's abstract appears on the following page.

ABSTRACT

Freshwater biota receive carbon and nutrients from within the system as well as from the terrestrial environment in varying proportions. During 2010–2011, we examined seasonal changes in carbon and nutrient inventories, plankton community composition and metabolism along a land-to-lake gradient in a major western Michigan watershed at four interconnected habitats ranging from a small creek to offshore Lake Michigan. In all seasons Lake Michigan had significantly lower concentrations of CDOM and DOC than any of the other sites. Lake levels of nitrate were not significantly lower than tributaries other than Cedar Creek, and SRP was not measurable in any of the sites other than Cedar Creek. Bacterial production as % of GPP revealed a distinct land-to-lake gradient from an average of 448% in Cedar creek to 5% in Lake Michigan. Microbial activity in Cedar Creek (bacterial production 3–93 $\mu\text{g C/L/d}$, and plankton respiration 9–193 $\mu\text{g C/L/d}$) was generally higher than other sites. Muskegon Lake dominated GPP among the sites reaching a peak of > 1000 $\mu\text{g C/L/d}$ during a fall *Microcystis* bloom. Offshore Lake Michigan had less variation in GPP and R than other sites, with GPP:R ratio close to 1 in all seasons but spring. Aquatic metabolism appears to be substantially subsidized by terrigenous inputs in the creek/river ecosystem with heterotrophy dominant over autotrophy. Autotrophy was maximized in the coastal/estuary “Goldilocks Zone” with longer residence times, whereas both autotrophy and heterotrophy were minimal but in near-balance in offshore waters receiving little subsidy from the land.

Link to full article in the Journal of Great Lakes Research:

<http://www.sciencedirect.com/science/article/pii/S0380133015001239>

**GRADUATE DEAN'S CITATION FOR
EXCELLENCE IN SERVICE TO THE
COMMUNITY OR PROFESSION
Fall 2016**

College of Community and Public Service

❖ **Marcus A. Manders, Master of Health Administration**

Marcus currently works as the Supply Chain and Inventory Control Manager at Mary Free Bed Rehabilitation Hospital where he manages the supply and purchasing departments, develops strategies for cost reduction, supply movement, and cost effective inventory investment, hires and mentors interns each year, and much more. He also held the positions of Procurement Project Manager and Human Resources Coordinator and Volunteer Services Leader at Mary Free Bed. Faculty express that Marcus has a willingness to mentor fellow students, a commitment to excellence in his coursework, an unparalleled work ethic and native intelligence, and that he is a model for any early-career graduate student.

College of Education

❖ **Stephanie N. Hallgren, Master of Education in Literacy Studies**

Stephanie was a student in the TESOL program that graduated in the 2016 summer semester. She currently teaches for Three Rivers City Community Schools and works with her community in a variety of ways including developing literacy programs for adult Latinos and children. In addition, Stephanie has developed a bilingual literacy program geared toward Latinos and has recently obtained a grant to further develop that program. In Three Rivers Community Schools, Stephanie is not only an ELD specialist, but is also a liaison and interpreter between parents and school administrators. She also volunteers her time to tutor students from all English proficiency levels. Faculty have described her as an excellent student and strongly recommended her for this award.

College of Health Professions

❖ **Blake D. Geschke, Master of Physician Assistant Studies**

Blake has demonstrated service to the community as president of the RPC Student Society for GVSU PA students when he collaborated to organize 2015 Heels to Heal 5k, a fundraiser for a local health clinic, Oasis for Hope. The American Academy of Physician Assistants (AAPA) has also recognized Blake's passion by electing him to serve on the Board of Directors for the Student Academy of AAPA, as Director of Student Communications. Blake also runs a blog encouraging PA students to share experiences, unique perspectives, and useful advice. Faculty have expressed that they are honored to have Blake in their program and to recognize his passion and service.

**GRADUATE DEAN'S CITATION FOR
EXCELLENCE IN LEADERSHIP AND SERVICE TO GVSU
Fall 2016**

Seidman College of Business

❖ **Adil T. Shah, Master of Science in Accounting**

Adil earned his Bachelor of Science in Biology from the University of Michigan and is currently completing his MSA. Adil is an active member in the Seidman community as the treasurer of the Graduate Student Advisory Board for the Seidman College. In this role he works on behalf of the board to secure funds through GSA and has contributed to the revisions of the Seidman Mission and Values. In addition, Adil serves as the Vice President of Professional Development on the Beta Alpha Psi executive board, the national honor society of accounting professionals. He is described by faculty as a pleasure to work with, a hard worker, and dedicated to Seidman and its students.

College of Community and Public Service

❖ **Jerome Obligado, Master of Health Administration**

Jerome has demonstrated leadership and service through the Healthcare Professional Graduate Student Association (HPGSA) where he has served as a member and finance officer. He has attended the American College of Healthcare Executives Congress (ACHE) annually the past two years, and he recently participated in the new Asian Section of the ACHE. He has also participated in local and regional Healthcare Financial Management Association (HFMA) meetings and activities. Faculty conveys Jerome as a young professional who has demonstrated leadership in the classroom through in-class, as well as larger team based projects and activities.

❖ **Shinyoung Park, Master of Public Administration**

As an international student at GVSU, Shinyoung Park has contributed her talents to enrich the graduate student community in many ways. During her time in the Master of Public Administration program, she was a leader of the

international student group, a graduate assistant, and completed two research projects. Her research was co-presented at two ARNOVA conferences with professors Salvatore Alaimo and Heather Carpenter. Additionally, Shinyoung has created a relationship between GVSU and South Korea through her involvement in The Korean Connection, which has bonded the SPNHA program and the Beautiful Foundation. The relationship with the Beautiful Foundation granted the opportunity for eleven representatives to visit GVSU this summer and begin a joint research project thanks to Shinyoung's efforts. Shinyoung's hard work and leadership in her graduate program make her an excellent recipient of this award.

College of Education

❖ **Katherine A. Mueller, Master of Education in Literacy Studies**

When Katherine began her career, she was one of the first and only second language instructors in her area. Katherine's final project relates to interactivity in learning foreign languages, especially Spanish. It is an invitation to second and foreign language teachers to examine research based practices that foster academic competencies through socially engaging activities. Faculty describe her project as a practical application of brain based research using concrete application of theory in second and foreign language teaching and learning. Katherine is currently an elementary Spanish teacher in the Grand Haven Area Public Schools district, and she has been able to apply her graduate-level work to the classroom.

College of Health Professions

❖ **Samara G. Spotts, Master of Physician Assistant Studies**

While completing her undergraduate degree, Samara worked as a CNA and a nursing technician at Spectrum Health on their Blodgett campus. The RPC Society, a PAS student organization, elected Samara as Vice President. During her time in this position, she organized the White Coat Ceremony and commencement ceremonies for her cohort. Samara mostly spends her free time serving others, such as helping with the annual 5K to raise funds for local free clinics. Faculty have described her as a kind and caring person that embodies the GVSU values of life-long learning, leadership and service to others.

**GRADUATE DEAN'S CITATION FOR
PROMOTING DIVERSITY AND INCLUSION AT GVSU
Fall 2016**

College of Education

❖ **Cynthia C. Bartman, Master of Education in Higher Education**

Cynthia currently serves as the standardized patient coordinator at Grand Valley State University. Her master's project proposed a community-based model for mentoring college students of color, and in another assignment she explored the experiences of African American women in college, leading to a publication in *College Student Affairs Leadership*. She received the Administrative Professional Commitment to Diversity Award at GVSU in 2011, which is proof of her commitment to diversity, equity and inclusion. Faculty describe her as someone who challenges herself and is a steward of diversity, equity and inclusion.

College of Health Professions

❖ **Brett J. Stacer, Master of Physician Assistant Studies**

Brett is in his third year of the PAS program and is the newly established Diversity Chair for the Richard Paul Clodfelder (RPC) PA student society. He is always eager to promote inclusion and diversity within the program and helped shape the future of his position. During his time as chair he has hosted several speakers to address his class, addressing topics such as interfaith in the medical field, inclusivity for LGBTQ patients, and HIV preventative efforts within the community. Brett focuses on encouraging his classmates to keep an open-mind and giving them a safe place to ask questions that may help them shape their future careers. Faculty express that the program has benefitted tremendously with Brett as Diversity Chair.

MAGS DISTINGUISHED THESIS NOMINEES OUTSTANDING THESIS 2016

The Midwestern Association of Graduate Schools (MAGS) calls for nominations for the annual Distinguished Thesis Award. Each school is allowed to nominate one student thesis for the award competition in each discipline category. This year's categories are Social Sciences and Mathematics, Physical Sciences, and Engineering. The theses representing GVSU are selected by a committee of faculty members from multiple disciplines and approved by the Dean of The Graduate School.

The GVSU faculty who served on the 2016 MAGS selection committee included:

- Dr. Bradley Ambrose, Department of Physics
- Dr. Sarah King, Department of Liberal Studies
- Dr. James McNair, Robert B. Annis Water Resources Institute
- Dr. Kristen Schrauben, Department of Psychology
- Dr. Steven Smith, School of Social Work
- Megan Woller-Skar, Department of Biology

Dr. Jeffrey Potteiger, Dean of The Graduate School and Associate Dean Dr. Mark Luttenton also served on the review committee and approved the final thesis selections.

College of Education

- ❖ **Theresa D. Lyon, Master of Science in Higher Education (graduated Winter 2015)**
 - **Thesis Title:** Undocumented Latino College Students and Identity Development: A Qualitative Analysis of Undocumented Latino College Students' Movement Towards Development Purpose
 - **Thesis Committee:** Dr. Donald J. Mitchell (Chair) – College of Education, Dr. Jay Cooper – College of Education, and Dr. Shawn Bultsma – College of Education

Theresa successfully defended her thesis and graduated at the conclusion of the Winter 2015 semester. Her thesis was selected to represent Grand Valley in the Social Sciences category as the nominee for the MAGS Distinguish Thesis Award.

Donald J. Mitchell, Theresa's advisor, stated that her "thesis explores an original and important topic, however, her study also fits well within current scholarly work considering undocumented Latino/a students and college student development theory. This study is the start of a promising scholarly career for Theresa as she has added to what we know about the identity development of undocumented Latino/a students, which is different from college students moving through college without an undocumented identity."

Theresa's research highlights the need for revisiting dated college student development theories as the higher education landscape becomes more diverse. In particular, she highlights the need to know more about undocumented Latino/a students who face numerous legal, social, and financial barriers as they attempt to pursue a postsecondary degree.

Theresa is currently an Academic Advisor in the Carl H. Lindner College of Business at the University of Cincinnati.

ABSTRACT

Undocumented Latino college students face numerous legal, social, and financial barriers as they attempt to pursue a postsecondary degree. The psychosocial stressors that accompany being labeled as an undocumented immigrant put these students at risk of disengaging from their postsecondary education as they face limited career options and social rejection. Researchers have noted the psychosocial development that occur as student's transition to an adult identity, yet little research has been done on how undocumented Latino college students navigate barriers to their identity develop and attempt to define their purpose as not only college students, but members of U.S. Society. This thesis explores how undocumented Latino college students develop a sense of purpose as a result of their psychosocial identity development that occurs during their postsecondary experiences. This study utilizes hermeneutic phenomenological methods to interpret how the narratives provided by study participants reflected Chickering and Reisser's definition of developing purpose, as well as the barrier navigation that occurs as undocumented students face the challenges of pursuing a postsecondary education within an ambiguous legal climate.

Padnos College of Engineering and Computing

- ❖ **Ravi Bhatta, Master of Science in Engineering (graduated Winter 2016)**
 - **Thesis Title:** Comparison of Load Carrying Capacity of Three and Four Lobed Polygonal Shaft and Hub Connection For Constant Grinding Diameter
 - **Thesis Committee:** Dr. Wendy Reffeor (Chair) – School of Engineering, Dr. Princewill Anyalebechi – School of Engineering, and Dr. Sung-Hwan Joo

Ravi successfully defended his thesis and graduated at the conclusion of the Winter 2016 semester. His thesis was selected to represent GVSU in the Mathematics, Physical Sciences, and Engineering category as the nominee for the MAGS Distinguish Thesis Award.

Ravi's thesis committee chair, Dr. Wendy Reffeor, stated " The topic of Ravi's thesis is of immediate relevance for design engineers. It provides validation of the existing standard as well as work that furthers the understanding of the design of polygonal shafts, a machine element widely used in heavy machinery."

In addition to the thesis, Ravi has also published in a number of venues. On March 19, 2016, he presented "Experimental and Numerical Validation of DIN standard for polygonal shafts" at the ASEE North Central Conference. His paper, "Comparison of Load Carrying Capacity of Three and Four Lobed Polygonal Shaft and Hub Connection for Constant Grinding Diameter" has been accepted for presentation at the 2016 ASME International Congress and Exposition in November. He is also preparing a manuscript, "Torsional Shear Stress in Polygonal Shaft and Hub Connections," for publication in the journal of Applied Mechanics.

Ravi is currently a Mechanical Design Engineer at JR Automation, in Holland, MI.

Ravi's abstract appears on the following page.

ABSTRACT

Polygonal shafts are a major competitor to spline and keyed shafts for power transmission due to features as self-centering, lack of stress concentration area, and ease of assembly and disassembly. Past studies on polygonal profiles have focused on a single profile and comparisons based on nominal sizes of three and four lobe profiles. This research explores the loading strength of the standardized three and four lobe polygonal shafts and hubs manufactured from the same stock size, subjected to pure torsional and torsional bending load from a spur gear of 20° pressure angle at various fits. In absence of analytical solution, Finite element method has been used after verifying the results experimentally, theoretically, and DIN standard. From the finite element analysis, the hub was found to experience greater stress than the shaft in all cases. The clearance fit was found to be the most critical connection and interference fit to be the most suitable for larger power transmission. The P4C connection had greater stress, especially in the hub, than the P3G connection. The difference between the P4C shaft and the P3G shaft was 4.05% in the interference fit and 60.6% in the clearance fit, suggesting P4C clearance fit to be less favorable for larger power transmission. Owing to its small normal axial stress, the P4C clearance fit has its use in low power transmission where sliding fit is a requirement. The reason for greater stress in P4C shaft and hub connection is due to the large pressure angle at the point of contact, which leads to a smaller contact area and greater contact pressure. The contact pressure was found to be triangular shaped in clearance and transition fit and with a large crest, followed by a trough and a small crest in interference fit for torsional bending load.

**GRADUATE STUDENT ASSOCIATION
OUTSTANDING FACULTY MENTOR AWARD
Fall 2016**

❖ **Dr. Laura Lenkey, Visiting Professor of Communication Sciences and Disorders**

Nominated by the following students in the Speech-Language Pathology program: Ryan Reardon, Amanda Sherman, Katherine Van Oeveren, Ashley Willming, and Sydney Wills.

The students write: “Dr. Lenkey has had a major impact on our learning and growth as graduate student clinicians throughout our journey as graduate students. The guidance and mentorship that she has provided to each one of us has been outstanding and will make a lasting impact on the services that we provide to future patients.

Dr. Lenkey has assisted us in our professional, academic, and clinical growth. She shares her clinical experiences and real world examples in the classroom setting to help broaden our understanding of topics and allow us to grow as clinical scientists. She is always encouraging us to think outside the box and with her support, pushes us out of our comfort zone.

Aside from being a wonderful professor, she has been a mentor to our class. She listens to our opinions and facilitates class discussions that are challenging and engaging. She strives every day to ensure we have the knowledge necessary to move forward in our career. She is dedicated to the program and it shows through her courses. I believe Dr. Lenkey is more than deserving of this nomination.”

❖ **Dr. Karyn Rabourn, Assistant Professor of Higher Education**

Nominated by: Paul Bylsma, Higher Education-College Student Affairs Leadership and Nicole Rombach, Higher Education-College Student Affairs Leadership

Paul writes: “I found Dr. Rabourn to be both personal, professional, and academic in all of my interactions with her. She is one of the most genuine people I have come to know in that you know exactly who she is and she is genuinely concerned with who you are as a person as well. She understands

the role of a student, having just completed her doctoral dissertation last fall, and as such she understands the pressures of being a student. However, she also understands the need for faculty to push their students to become the best that they can be. I found this to be the case with Dr. Rabourn as she continually pushed my writing and research to the next level while encouraging me as a student and a person.”

Nicole writes: “Not only does Dr. Rabourn set high expectations, but she continues to ‘push back,’ challenging us to think more critically, embrace ambiguity, and become more comfortable with feedback. She has also incorporated new and creative projects into the curriculum, and has implemented a graduate-level writing workshop for students studying higher education.

Beyond that, she has taken the time to get to know us as individuals, and has supported us both in and out of the classroom. In my case, she has also offered to involve me in projects, including her own research, has supported my own research endeavors, and has offered her unconditional support in my decision to apply to Ph.D. programs. I can honestly say that she’s challenged me more than any of my other graduate-level professors, and that she has been an incredible role model. Her passion for her work is undeniable, and I truly believe that she is invested in our futures. As such, I believe she is deserving of this award.”

**GRADUATE STUDENT ASSOCIATION
KIMBOKO INCLUSION AWARD
Fall 2016**

The Graduate Student Association created the Kimboko Award to faculty who have made significant contributions in outstanding teaching, distinctive scholarship or creative work, or noteworthy service in moving GVSU graduate education toward being a more diverse and inclusive community. The award recognizes the accomplishments of Dr. Priscilla Kimboko, GVSU's first Graduate Dean, and represents her commitment to these values.

- ❖ **Dr. Lara Jaskiewicz, Assistant Professor of Health Administration**
Nominated by: Thinzar Wai, Master of Health Administration and Biostatics graduate student

Thinzar writes: "While completing the Health Administration graduate program, Professor Jaskiewicz was my advisor. In the beginning of my first semester, I was so afraid and having a hard time to adjust the new environment and education system of the US. I took one of her classes and she is very supportive, knowledgeable and helpful. She actually guided me to pursue my interest. Honestly, I found my interest and talent because of her.

She mentored me how to succeed my ambition and gave me a chance to work on my own research project by doing hands-on experiences. She also encouraged me to learn some statistical software. Because of her guidance, my research's abstract was accepted and I was able to present at the Conference called APHA. She supported my interest in pursuing my second master degree. I am thankful her everyday as I have enough courage to continue my second degree (MS). She is an awesome professor that I've ever seen and very supportive not only to local students but also to international ones.

Without her mentorship, I wouldn't be able to continue further studies and my career of being a statistician."

GRADUATE STUDENT ASSOCIATION OFFICERS

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Vice President: Kathryn Christopher, Engineering

Finance Officer: Blaine Harvey, Higher Education

Administrative Officer: Jordyn Lawton, Public Health

Communications Officer: Richa Bhurtel, Business Administration

Graduate Council Student Elected Representatives:

Taylor Boyd, College Student Affairs Leadership

Chase Dolan, College Student Affairs Leadership

Advisors:

Mr. Steven Lipnicki, Assistant Dean of Students

Dr. Mark Luttenton, Associate Dean of The Graduate School

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Dr. Jeffrey A. Potteiger, Dean of The Graduate School

Dr. Mark R. Luttenton, Associate Dean of The Graduate School

Irene Fountain, Administrative Assistant

Jennifer Palm, Assistant to The Graduate School

Graduate Assistants:

Jasmine Ahuja, Health Administration

Jordyn Lawton, Public Health

Kelsey Stevenson, Communications

Student Assistants:

Eugenia Browner, Social Work (undergraduate)

Kelley Heynen, Accounting (undergraduate)

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