

THE EDGE

FALL/WINTER 2020

ECBU DEPARTMENT NEWSLETTER



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KEEP CALM & CARRY ON



You have in your hands (and/or on your computer screen) the eighth issue of *The Edge*, in the fifth year since we started this departmental magazine. To remind you, *The Edge* was founded to provide detailed and interesting news of and about our lively department. I feel we have done just that, over the past five years.

And of course, I never anticipated what this year, 2020, would be like, a year of changes and adjustment. First, we faced the long-planned, and long-anticipated move out of our offices into close quarters (very close quarters!), as the long-anticipated renovation of Scott Shipp Hall began. Private meetings with cadets had to be carried out in the hallways, or wherever we could find an empty classroom, privacy suffered but trust prevailed.

Then the pandemic took center stage, and when cadets departed in mid-March, it was evident that our world was about to change. The pandemic dictated a new way of teaching, of learning, and adjusting. We, the faculty, took classes on Canvas, or for those more advanced (and no doubt younger of us!) the chance to perfect online skills. We learned about teaching via Zoom, and had to make hard decisions on whether to teach virtually, or hybrid.

It was, and remains a new world. On balance, I think we have achieved a great deal and have learned a great deal. The cadets faced many of the same challenges, but often had the advantage of a greater knowledge of the incredible possibilities of computer learning.

Much of this is reflected in this issue of *The Edge*. The cover story is on the renovation and expansion of Scott-Shipp, the final article is on the personal reflections written by faculty and cadets on what it is like to teach, and to learn, during these trying, and demanding times. Book ends of an incredible year!

In between you will be able to read about some of the initiatives and new teaching programs initiated by our remarkable, flexible ECBU faculty. It was a year in which the WWII adage, *Keep Calm and Carry On*, gave new meaning.

—Col. Clifford West, Department Head, ECBU

NEWS FROM THE PERSONAL FINANCE CLUB

The VMI Personal Finance Club is pleased to announce that in spring 2021 it will be hosting a certificate program in personal finance. Mr. David Abbey of MassMutual will conduct the program through Zoom. The 5-week program will occur on Monday nights from 2000 to 2100 from February 1, 2021, to March 1, 2021, barring any unforeseen changes to the Institute's current spring schedule. The following five topics will be covered each week during the program:

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The Edge is the newsletter of the **Economics and Business Department** (ECBU) of The Virginia Military Institute (VMI) located in Lexington, Virginia. As a registered institute of higher learning and an accredited member of the AACSB, our mission is to educate the young men and women enrolled in this institution. Our courses specialize in all aspects of economics and business with an ongoing effort to provide enlightenment and focus of the world in which our students will emerge after graduation. We welcome readership involvement and are interested in your opinion. We are strongest with your involvement. We encourage students, faculty, alumni, and interested friends of VMI to submit articles and article ideas. Send them to macdonaldbn10@vmi.edu.

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- Week 1: Common Financial Mistakes
- Week 2: Investment
- Week 3: Insurance
- Week 4: Debt Management
- Week 5: Retirement

The program is open to all cadets at the Institute on a first-come, first-served basis. Enrollment in the program will cost \$50 per cadet. The Dean's office has graciously agreed to reimburse the first 20 cadets who complete the program for this \$50 enrollment fee. If you are interested in signing up for the certificate program, please contact the club's CIC Matt Reimann at reimannmt21@mail.vmi.edu or ACIC Bobby Hoeft, hoeftrt22@mail.vmi.edu.

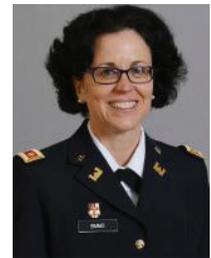
Cadet Hoeft is helping to coordinate the introduction of VMI cadets for 10–20 internships positions available

at MassMutual during summer 2021. Cadets who are interested in such an internship are asked to contact Cadet Hoeft via email. Mr. Hoeft interned with MassMutual during summer 2020 and can talk with cadets knowledgeably about what the internship experience may entail. In a recent email to the current club roster, Mr. Hoeft described the internship as “100% worth it.”

Founded in 2018, the VMI Personal Finance Club strives to help cadets learn to manage their finances while they are enrolled at VMI and after they graduate from the Institute. The club is open to all VMI cadets regardless of major; prior knowledge about personal finance is not required. Topics that the club has investigated have included: applying for student loans; improving credit scores; managing cash; and planning for retirement and for other saving goals

that are highly applicable to cadet life such as paying for class rings. In true VMI fashion, the club seeks not just to assist its members but also to help the City of Lexington and the surrounding communities, when opportunities arise.

The Club is considering expanding its list of executive officers to include a club secretary and marketing director. Interested cadets should contact club faculty advisors, Maj. Simms, faculty advisor, simmsk@vmi.edu or Col. MacDermott, faculty advisor, MacDermottRJ@vmi.edu.



LOOKING AT NEW CULTURES

A generous donation by ECBU alumnus, Tom Watjen '76, and his wife, Nanette Watjen, to the Economics and Business Department has allowed us to launch a number of new initiatives under the umbrella of the new Watjen ECBU Leadership Development (**WELD**) Program. The program consists of five new initiatives—Study Abroad Program, Cross Cultural Internship Program, WELD Research Initiative, WELD Practicum Assistant Grant, and the WELD Leadership Funds.

The *Study Abroad Programs* initiative seeks to provide ECBU cadets the opportunity to directly engage with other cultures, and other political and economic systems, so they learn to be compassionate citizens and effective global leaders. This component of the program provides scholarship for cadets to study abroad as well as funding for faculty in our department

to develop and lead summer study abroad programs.

The mission of the *Cross Cultural Internship Program* is to provide ECBU cadets the opportunity to work in different cultures and economic systems so that they excel in a global business environment and are effective global leaders. The initiative provides scholarships for tuition for ECBU department approved domestic and international internships for credit with a focus on cross-cultural issues.

The third initiative, the *WELD Research Grant* initiative, is to facilitate ECBU faculty-led undergraduate research to foster cadets' intellectual curiosity, support cadets' academic growth, and provide opportunities for cadets to apply and improve their economics and business knowledge and skills. The program is still being developed and will hopefully give tuition remission for summer undergraduate

research and provide funds for software, datasets, experiments, and other resources.

The fourth initiative, the WELD Practicum Assistant Grant program, encourages ECBU cadets to apply their knowledge and skills to serve the local community and help local non-profit organizations, and foster cadets' sense of public service. The program covers stipends for cadets to work with local organizations. We are launching a pilot of this program in spring 2021.

The last initiative seeks to provide opportunities for members of the ECBU honor society and ECBU clubs/organizations to attend conferences, invite speakers, and organize discussions on topics related to economics and business.

All full-time faculty in the department are involved in the WELD initiative.

SCOTT-SHIPH HALL RENOVATION AND EXPANSION—AN UPDATE

As the cover photo reveals, during the spring and summer of 2019 ground was broken for the long-anticipated, long-desired renovation of Scott-Shipp Hall, home for the Economics and Business Department (along with the English Department, International Studies, History Department, and Modern Languages). Some would say it was long overdue, since the original building was erected in 1918, added onto in 1955, and renovated during 1998–2000. At this point, the building is about 75 percent complete. Windows are being placed, interior rooms are being framed in, and furniture is on the way.

In this article, we will sketch in the highlights of this massive project, now approximately 16 months in the making. Some highlights:

- **Phase I.** In October of 2019, I interviewed Kevin Rogers, Superintendent for The Whiting-Turner Contracting Company, who gave me a full and informative briefing. The project will be completed in two phases. Phase I is devoted to demolition, outside and inside, essentially the new addition, what is known as the 1950s' Annex. This

work is almost completed. Mr. Rogers did tell me about a difficult problem they encountered early on. Obviously to build tall and expanded space (new space), footers had to be dug and placed to support the weight and bulk of the walls. Normally this is done with what is called a “hoe ram.” It was unsuccessful at breaking up strong ledge rock they encountered and blasting wasn’t an option due to the presence of the many buildings nearby. A third option was suggested and it worked—expansive demolition grout or mortar (called “Dymaite”) was used. First a series of bore holes were drilled—then Dymaite was dropped into the holes. Dymaite contains an Epoxy chemical that when mixed with water will expand (slowly), so that after a period of time, it is capable of applying enormous pressure of approximately 18,000 pounds per square inch to the rock. By drilling numerous holes and then filling them with this magic substance, the rock was cracked, and could then be removed. Obviously this is slower than a simple power driven bore, which slowed the timing of the project. Rogers told me that they were finally able to pour concrete into these holes—thus essentially forming the





Fourteen months after cover photo taken

footings by mid-October. This allowed them to complete the footings, so that in two to three months they would be out of the ground and the footprint will be clear for all to see and anticipate.

- In January of 2020, construction began, and that is where they are still today, building out the east wing of Scott-Shipp, all concrete walls, floors, and ceiling.
- The only delay Mr. Rogers anticipates in this phase would be the necessity to preserve many windows because they are historic. About this delay, he commented, “Yes, I understand their value, and some cannot even be removed to be fixed. We have placed white index cards on them so that no one will remove or alter those windows in any way.”

In **November of 2020**, I interviewed Col. Keith Jarvis, Director of Construction. He assured me that the Phase I work was almost complete and that we (the faculty) would be able to move in over the Christmas Break. He was enthusiastic about the new features, the interior of the building, and how well it will improve the teaching experience for all of us. He also suggested that I see the exterior of one part of the new building—where the scaffolding and coverings have just been removed. I did and have included a photo showing the

handsome casement windows, now carefully restored and cleaned.

- Phase II will be the renovation of what is called the “1918 Building.” This will begin in spring of 2021. It will be more a renovation than new construction, and largely internal. New HVAC will be installed as well as essentially improving what is already there.

WHAT IT WILL BE LIKE

- When ECBU, and the other departments finally move in (hopefully by early January 2021), we will enjoy, and be able to teach in greatly improved physical space (a projected 28,000 feet of additional usable space throughout the building—additional 5,000 square feet on each floor), larger classrooms, and interactive areas called “Collaboration Spaces.” Our department (ECBU) will move from the third floor to the second in the newly renovated space, we anticipate, with a computer-activated wall screen showing stock and bond quotes in real time, a high ceiling conference room, and interesting wall graphics.

So, we are excited for it to end, and more importantly for the chance to teach in this new space and enjoy all the improvements.

COL. BARRY COBB WORKED WITH CADET TRISTAN HOWARD TO DEVELOP AN IMPORTANT, NEW HEALTHCARE PROCESS

Independent study projects are a valuable part of the curriculum at VMI and vary widely in subject matter and application. Their advantages are numerous. They provide variety to the curriculum, inspire special thinking, and often benefit some aspect of life for the community at large. Five years ago, two cadets worked on an application of the Shepherd Program for people in Lexington and Buena Vista that would inform and help the maintenance staff and workers at VMI and W&L learn how to work with banks and savings and loan institutions. Another notable case was last summer, when Col. Barry Cobb worked with a cadet on an important project that earned that cadet the prestigious Wilbur S. Hinman Research Award.

Cadet Tristan Howard '20, an Economic and Business major, approached Col. Barry Cobb to discuss and then for permission to pursue an independent study project that (broadly speaking) involved investigating staffing models used in health care operations. In the past year, working with Col. Cobb's guidance, he developed an aggregate planning model that can be used by the pediatric intensive care unit (PICU) at the University of Virginia (UVA) to forecast its staffing requirements and labor costs. The result of his study, and thesis, will now allow UVA to PICU business to match its capacity to serve patients with the demand for its services over a time period of one year. Here is how he developed it.

1. Tristan began by developing a patient demand forecast from actual patient load data provided by the PICU. This process included testing nine different time series forecasting methods and comparing the results based on three different error measurements for each method. Ultimately, he combined the top four forecasting methods.
2. Next, he documented the time required on the regular patient care tasks by PICU nurses. This involved three meetings with PICU nurses and the nurse manager.
3. He was now able to create a model that translated the forecasted patient loads over the next year into the total requirements for required nursing hours.
4. This allowed him to develop occupancy and utilization assumptions that can capture the time spent by nurses on other paid activities not included in the regular patient care tasks.
5. Next he was able to translate the required nursing hours into a staffing and hiring plan by considering potential overtime hours and attrition.
6. And finally this hiring plan allowed him to

calculate the total costs for several different staffing and hiring plans at last allowing the PICU to judge the costs associated with various plans, as well as determine the financial impact of proposed process improvements.

2. Now, thanks to his model, Tristan could provide the outcomes of his project with the nurse manager at the PICU and accurately forecast their current staffing levels. This is important because it allows the PICU to use the model to match staffing with future demand and evaluate process improvement and investments in infrastructure that reduce costs and improve quality of care. Tristan's model can be directly applied in practice in numerous health care settings.

Quite an achievement! For such a project Cadet Howard earned the nomination for the Hinman Award from the ECBU department by presenting his research to the faculty along with four other deserving cadets. The faculty then voted to nominate Tristan as the most outstanding research project in the department during the academic year.

Tristan Howard already had a longstanding interest in healthcare, and appreciation for the role of nurses. Here is how he put it in an interview last year. "Nurses have a much broader application of their skills and attention—like the critical and daily tasks of ensuring that medications are ordered and ready when needed and to confer with physicians regularly and finally to document each patient's care with meticulous accuracy. As he put it "The nurses do a ton of work and I hope, in my study, to document, recognize, and determine how much they can and actually do.

Last summer, whenever he wasn't working on his independent study project, he could be found at the Lexington Fire Department, where he serves as a firefighter/EMT. After graduation Tristan hopes to work in Chesterfield, VA, as an EMT.



STEVE LANDGRAF AND TIM MURRAY

Since our last issue of *The Edge*, the ECBU department has seen many changes and added to our faculty. Two new hires are profiled here, beginning with our newest professor, Steven Landgraf. I interviewed him in mid-November and very much enjoyed the experience.

First of all, Steven is a Midwesterner, born in Wisconsin and spent most of his life (so far) there. He attended St. Norbert College in De Pere, Wisconsin, where he majored in economics (which is just 15 minutes down the road from where the Greenbay Packers play). He went on to get a master's degree in applied economics from Marquette University in Milwaukee, and then worked for two years as a market analyst for a small electric utility headquartered outside of Madison. This period was a decision point in his life to continue to pursue the world of business and investment analysis, or to become a teacher.

In 2013, he decided to enter the world of academia; to go back to school to pursue a Ph.D. in economics and become a college level professor. That took him to Florida State University in 2018, where he wrote his dissertation on competitive issues in markets for

Internet service and electricity. He is also interested in, and pursuing research into Urban Economics. His first move (and job—post graduate degree) was as an assistant professor at Wittenberg University for 2 years.

I knew the answer to one question before I asked it—what was his life like growing up in Wisconsin? This is a land of bountiful and beautiful lakes and woods. He responded immediately, “Fishing of course, hiking, and hunting with my buddies but most meaningfully, with my dad.” Steven’s wife is named Kim, and she has a Ph.D. in Medieval Literature (also from Florida State). They met while both were students at St. Norbert. She is also teaching at VMI in the English department as a visiting assistant professor of English. They rent a house on Summit Street in Lexington, which they share with two cats.

Welcome aboard, Steve (and Kim).

I originally interviewed Tim in October of 2019, shortly after he came to Lexington and joined the ECBU faculty at VMI. This is an updated profile.

Timothy Andrew Murray grew up in Williamsburg, Virginia, and was quite an athlete. Because of his height, it is not surprising that he was active in sports growing up, including basketball,

track and field, and cross country. He is still an avid basketball player today. Following high school, he attended Virginia Tech (for three years) and then transferred to Old Dominion University in Norfolk, Virginia. At Virginia Tech, he initially majored in Mechanical Engineering, but he changed his major to Economics in his sophomore year. After completing a BA in Economics with a minor in Applied Mathematics, he continued to pursue an MBA and MA in Economics at Old Dominion University. To complete his education, Tim then moved Connecticut to pursue his Ph.D. in Economics at UConn in Storrs, Connecticut. He graduated with his Ph.D. in May of 2019 and is now an Assistant Professor of Economics in the ECBU department at VMI, where he currently teaches courses that include Principles of Microeconomics and Labor Economics.

Tim has research interests in labor economics, health economics, housing economics, and the economics of aging. His current research focuses on two general topics. First, how retirees can maximize their consumption in retirement, specifically understanding how they could and why they do not use their housing equity for that purpose. Second, how the health of men and women differ from different types of environmental and physical stimuli. These, and more were discussed with Tim in our interview.

Tim has lived in Lexington since his arrival at VMI in July 2019. In his free time, Tim spends a lot of time at the gym lifting and playing basketball. He also is an ardent fan of movies, quality TV series, and watching sports. Some of his favorite movies include *Star Wars*, *Harry Potter*, the *Avengers* series, *Forrest Gump*, and *Lord of the Rings*. His favorite TV shows include *The Office*, *Game of Thrones*, *Breaking Bad*, *Ozark*, and *The Mandalorian*.

Steven Landgraf



Tim Murray



TEACHING/LEARNING IN THE PANDEMIC

Because the pandemic has imposed itself on our lives so significantly, forcing professors to teach (sometimes) hybrid style, behind Plexiglas® screens or alternatively sometimes virtually from home, I decided to find out how, and in what manner, the result will be reflected next year—or perhaps many years from now.

FIRST FROM FACULTY

“The best new thing I started doing because of the pandemic is to have cadets read a case study (usually from the *Wall Street Journal* that is about two pages long) prior to my lecture on a particular chapter. They have to summarize the case study in one page and then provide connections to the chapter or any previous chapter in a half-page. Then, they have to discuss the case with other cadets on the Canvas Discussion Board within 3–4 days. I provide feedback on the summary, connections, and the discussion for each cadet. This has been a great way to get cadets to engage with each other and the material.”

—Col. Jennifer Gerow

“The pandemic has provided some fascinating examples that have been used to reinforce principles taught in my courses. For example, supply chains for products like toilet paper and meat have been affected. In the case of toilet paper and cleaning products, we discussed in operations management that the shortages are occurring temporarily because these type of products have had stable demand patterns for decades, so manufacturers produce these in a lean environment without capacity buffers. They are unwilling to add capacity for a short-term surge in demand because this would cause the bullwhip effect to occur, and this would likely lead to excess inventory at some point.”

—Col. Barry Cobb

“I’m grateful that the Institute allowed us to develop our own teaching

strategies and understood this was not one size fits all in terms of teaching or selection of technology. For me, the best approach ranged by class.”

—Major Kathy Simms

“The silver lining of the pandemic is that it made it necessary for us to learn new technology. This technology decreased the costs (both monetary and time commitment in terms of travel) of attending presentations, workshops, and discussions both for students and for faculty.”

—Col. Valentina Dimitrova-Grajzl

NOW FROM CADETS

“During these unprecedented times during the pandemic, there have been many struggles with the way we are learning. Online learning is very challenging at times due to all of the many distractions in barracks. Roommates and other cadets are constantly coming in and out of the room performing their daily activities while class is in progress. However, the professors are doing an excellent job providing the information to the cadets in a way that helps them be successful. I believe that even though we are learning differently, I am still learning new information that will help me be successful in the future.”

—Cadet Wil Knight

“Learning in the pandemic environment has been a learning process within itself. While the change in environments has been helpful in some respects, personally, I believe nothing beats face-to-face interaction between a teacher and student. I believe that the value of education now is no longer worth its price as students are paying for classrooms they don’t use and teachers they have limited access to.”

—Anonymous

“Learning under the conditions of online only isn’t that bad. It is what you make it. It also depends on the class on

how similar it is to learn as if it were in person. But for the most part it isn’t really different. It allows you to be more relaxed, and not have all the stressors of a school like VMI. You get used to your teacher being behind Plexiglas® pretty quick. It becomes the norm. I think the value of our education is still equal to what it was before.”

—Cadet Reeves Whitmore



FINALLY, FROM COL. TINNI SEN ON ZOOM FATIGUE

Exhausting, is how both my cadets and colleagues would describe the fall semester. For those who taught in person, or a mix of in-person and online, speaking loudly and clearly through a mask that trapped the virus, and carbon dioxide, made breathing difficult. For the first time, I was out of breath often, stopping to turn away and loosen the mask, then turning back to resume class. It slowed me down. I had not anticipated that when I planned my classes, “Zoom fatigue” crept into those classes that met partly or wholly online.

But, as in any period of challenge, we learned to innovate, and there were silver linings. “Zooming” into class every other day, I was able to engage each and every cadet in each and every CP. There is no way to hide in the back row!

What does the future hold? Please, ye fates, all in-person classes. But with a dash of zoom conversations with cadets who are indisposed, a few more animated lectures posted to canvas, more online discussion boards where even the most introverted of students can participate, and above all, less complacency with our model of teaching.