

UNIVERSITY OF DELAWARE PROFESSIONAL & CONTINUING STUDIES

SPRING 2021 | PROGRAMS AND COURSES

HELPING OUR REGION RECOVER



UD PCS HELPING REGION RECOVER

Scholarships, discounts and payment plans offered for in-demand programs



With laptops in tow, we bid each other adieu and departed from the University of Delaware's Newark campus and our locations in other parts of the state on Friday the 13th of March.

Just as many of you did as the calendar was turning to spring, we hurriedly turned guest bedrooms, basements, dining room tables, lofts, alcoves and screened-in porches in our Delaware, Maryland and Pennsylvania residences into makeshift home offices. At this time, terms like "COVID-19," "coronavirus," "social distancing," "stay-at-home orders," "the new normal" and "WFH" were entering or becoming more prominent in our vocabularies, and we found out that Zoom was not

just the name of a former children's TV series.

Though there certainly was an adjustment period as we replaced in-person meetings, office pop-ins, impromptu hallway strategy sessions and water cooler chats with countless phone calls, text messages, emails and yes, Zoom meetings, we have not missed a beat. We transitioned most of our programs, including our **Osher Lifelong Learning Institute** offerings, to online delivery and have remained steadfast in our commitment to serve learners across the lifespan continuum and provide educational opportunities for anyone seeking to begin or complete their college career, enhance their academic or professional skills, or enrich their personal life.

Throughout this crisis, which has disrupted all of our lives in way or another, we have been able to draw some comfort by seeing how many of our University of Delaware Division of Professional and Continuing Studies (UD PCS) programs are providing training for professions and skills that have had substantial increases in the need for proficient practitioners because of COVID-19.

While the medical field is quickly adapting to an enormous surge in virtual visits and an increased demand for registered nurses, all industries have been faced with the decision of what, if anything, to post on social media during the pandemic. Big data is being used to help stop the spread of the virus, and IT project managers are guiding the change-management initiative necessitated by the move to working remotely. As you make your way through this guide, you will see that UD PCS programs like **Advanced Telehealth Coordinator, RN Refresher, Social Media Marketing, Analytics: Optimizing Big Data, and IT Project Management** are just a few of the many examples of our courses supplying necessary and topical training.

As members of the community we serve, our unwavering focus is on what we can do for you, our neighbors and friends. We are concerned about everyone in Delaware and the surrounding region who has lost their job or experienced any other COVID-19-related hardship and are looking to do our part to aid in the recovery. We are pleased to help those affected take the next steps forward by providing in-demand programming supported by financial assistance and complemented with free seminars.

Along with **scholarships**, we offer **payment plans** as well as **discounts** for early registration, active military members and veterans, memberships in business associations, groups of two or more, and UD students and alumni. In addition, anyone who experienced a job loss due to COVID-19 may be eligible for a Delaware Workforce Investment Board (DWIB) training grant.

Your need to upskill, reskill and refocus may now be greater than ever, and we want to help you. We hope we offer something that can be beneficial to you and encourage you to reach out with any questions you have along the way about how we can assist you.

All of us on the UD PCS team wish you and your families a safe and healthy new year!

What can UD do for you?

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NEW PROGRAMS FOR SPRING

DAT Test Prep	.28
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The University of Delaware's Division of Professional and Continuing Studies (UD PCS) provides educational opportunities for anyone seeking to begin or complete their college career, enhance their professional skills or enrich their personal life. UD PCS also provides customized training and educational services to area businesses, organizations and professional associations.

As the adult and nontraditional learners' portal to the University of Delaware, UD PCS impacts thousands of students each year through UD credit courses and degree offerings, professional development courses, certificate programs, specialized conferences, workshops and lifelong learning member cooperatives throughout the state.

Through UD PCS, the University of Delaware extends its vast resources, research, technology and knowledge to the community, the region and the world. UD PCS provides:

- Academic advisement and career counseling
- Credit courses and degree completion
- Customized learning and community partnerships
- Lifelong learning opportunities
- Pre-college programs
- Professional development programs and courses
- Online learning opportunities through UD Online

Spring course delivery format

While many of our continuing education courses are traditionally offered through an in-classroom learning format, spring 2021 courses will be taught in a liveonline format via videoconferencing.

Should a change occur in course delivery format, enrolled participants will be notified as soon as possible.

The UD Professional & Continuing Studies ACCESS Center:

Academic advisement, credit registration, and career exploration and assessment

The ACCESS Center provides free academic advisement, career exploration and assessment, and credit registration assistance. Advisors are available to help you achieve your educational and career goals.

ACCESS Center services and resources include:

- Academic advisement for first-time or returning students, including assistance with course/program selection and registration.
- Career exploration and counseling, including administration of career inventories.
- Unofficial transcript evaluation and curriculum review for prospective transfer students.
- Information and assistance with the University's admission and readmission processes.
- Information regarding UD resources and student services.
- Information on University policies and procedures.

Explore your options! Contact the ACCESS Center to schedule an appointment.

Email: access-advise@udel.edu · Phone: 302-831-8843 pcs.udel.edu/access

Power Up Your Career Seminars

LIVE-ONLINE-Free and open to the public

Special career- and personal branding-focused seminars provide immediately applicable tips and strategies for your professional goals. The following seminars are offered liveonline, via Zoom, 10–11:30 a.m. on Saturdays.

- Common Productivity Challenges and How to Solve Them (February 13)
- Virtual Meeting Etiquette: Best Practices and Protocols for Productivity (March 13)
- Improving Your Personal Information Security and Awareness (April 10)
- Cultural Awareness and Diversity in the Workplace (May 8)

See pcs.udel.edu/power-up for more information.

Credit courses and degree completion

Whether you are a high school student seeking the challenge of college coursework, an adult looking to start or complete a degree, or someone interested in taking individual courses for personal, educational or professional enrichment, you may take UD courses as a Continuing Education, nonadmitted student. You do not have to be officially admitted to the University to get started. As long as you meet the course requirements or prerequisites, many University courses are available to Continuing Education students. A wide variety of courses are offered in the evening and online.

Spring courses are scheduled to begin Feb. 15, 2021. For the latest information regarding the UD academic calendar, consult udel.edu/registrar/cal.

Ready to search for a course? Visit udel.edu/courses.

Ready to register? Visit pcs.udel.edu/registration.

Over-60 Tuition-Free Program for matriculated Delaware residents

If you are a Delaware resident age 60 or older, you may pursue a University of Delaware degree without paying tuition. You must apply and be accepted (matriculated) to qualify. Visit **pcs.udel.edu/60-tuition-free-degree.**

Need more information? Contact the Professional and Continuing Studies ACCESS Center at access-advise@udel.edu or 302-831-8843.

Lifelong learning opportunities

The University of Delaware hosts Osher Lifelong Learning Institute (OLLI) programs in Bridgeville, Dover, Lewes, Ocean View and Wilmington for adults to enjoy classes, teach, exchange ideas and travel together. Currently, all OLLI programs are offered online only, so try out a new language, meet with a passionate discussion group or revisit your favorite areas of study. These volunteer-based academic cooperatives typically offer more than 970 courses each year, with no grades or exams and no educational prerequisites. **See page 37 for details.**





Customized learning and community partnerships

The University of Delaware provides customized programs designed to help your business or organization achieve its training and employee development goals. Professional coaching, executive education and customized training programs are tailored to your organization's needs and can be delivered online, on-site or on campus.

Customized training

We design and deliver customized training and executive education programs that meet the specific needs of your organization. We utilize the advanced expertise and experience of University of Delaware faculty and external subject matter experts to provide exceptional learning opportunities for your team.

Comprehensive instructional design and course delivery solutions

Our strong knowledge of instructional design techniques, technology applications and adult learning styles enables our educators to produce and deliver classroom-based and online programs tailored to your needs.

Professional executive coaching

We help organizations develop employee strengths, address challenges, improve productivity and increase job satisfaction. We will design new or enhance your existing coaching programs, including executive-level services.

Benefits to your organization

Outsourcing your organization's professional development to UD enables your employees to focus their efforts on core business issues that affect your bottom line.

Other benefits include:

- Strengthening your workforce through proven leadership programs.
- Optimizing work processes with project management and occupational safety programs.
- Improving relationships through diversity, teamwork and communications programs.

Professional development programs and courses

UD PCS offers a variety of ways for you to build your credentials and move ahead in your career. Certificate programs, seminars, conferences and short courses provide you with practical knowledge and skills as well as resumebuilding credentials. Our faculty and adjunct instructors combine strong academic backgrounds with extensive real-world experience. Programs include:

- Business & IT-Business Analysis, Data Analytics, IT Project Management, Microsoft® Excel, Nonprofit Leadership, Project Management, Sales Operations Science, Self-Paced Programs, Social Media Marketing
- Drone Training-Professional Drone Pilot Training
- Food and Hospitality-HR Competencies for Restaurant Managers
- Healthcare-Advanced Telehealth Coordinator, Clinical Trials Management, Dental Symposium, Eastern Shore Medical Symposium, Medical Aspects of Sports, RN Refresher
- Law–Paralegal, Advanced Paralegal Seminar Series, LSAT Prep
- Pre-College-UD Dual Enrollment, SAT/ACT Prep, Summer Bridge Program in Mathematics
- Safety-COSS (Certified Occupational Safety Specialist), COSM (Certificate for Occupational Safety Managers), SAF Frontline Safety
- **Test Preparation**–ACT, DAT, GMAT, GRE, LSAT, MCAT, SAT, Praxis

See pages 4–28 for complete program listings.

Online learning opportunities through UD Online

More than 240 University of Delaware credit courses– as well as 26 degree programs, certificate programs or professional development programs–are offered online, and more are developed every year. Ranging from an associate in arts to an MBA or M.S. in mechanical engineering, online programs from the University of Delaware are ideal solutions for students and professionals seeking to advance their education while accommodating their busy schedules. **See pages 29–33 for program listings.**

Business and IT programs

Free Live-Online Information Sessions

Join us for the following live-online information sessions to learn more about spring 2021 professional development programs, speak with instructors and ask questions about the programs you're interested in.

Tuesday, January 19 7–8 p.m. Analytics: Optimizing Big Data Microsoft Excel Nonprofit Management Sales Operations Science Women's Leadership

Wednesday, January 20

7–8 p.m. Business Analysis

Project Management

Thursday, January 21

7–8 p.m.

IT Project Management Social Media Marketing (fundamentals to advanced)

Meeting information sent upon registration pcs.udel.edu/info-session NONCREDIT CERTIFICATE | LIVE-ONLINE

Analytics: Optimizing Big Data Certificate

Use data-supported solutions for improving business performance

In today's business world, data is easier than ever to collect and store. But it's the analysis of the volume, velocity and variety of big data that provides managers with knowledge that can be translated into effective decision-making and improved business performance. This certificate program brings together statistics, analysis and both written and oral communication skills through an applied approach, providing participants with the tools to join the rapidly growing data analytics field.

PREREQUISITE: This course uses statistics throughout the curriculum. A basic understanding of statistics is required.

WHO SHOULD PARTICIPATE?

- Business, marketing and operations managers
- Data analysts or professionals in any field who deal with large amounts of data
- Financial industry professionals
- SCHEDULE: Mondays, February 15–May 19, 2021, 6–9:15 p.m. (Class meets twice in the final week on Monday and Wednesday.)

LOCATION: Live-online

PRICE: \$2,895, course materials included. Payment plan, scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/data

NONCREDIT CERTIFICATE | LIVE-ONLINE

Business Analysis Certificate

Bridging the business/IT divide

A business analyst bridges the "understanding gap" between an organization and its technology, functioning as a type of translator who converts business needs into measurable IT requirements and solutions. To succeed in this role, the business analyst must have a broad range of business, technical and interpersonal skills, including being able to effectively write and review detailed functional specifications as well as develop and test systems based on those requirements.

WHO SHOULD PARTICIPATE?

- IT professionals new to business analysis
- Employees currently working in or interested in moving to a position in which business analysis skills would be useful

SCHEDULE:

Business Analysis Module 1:

Foundations of Business Analysis

Tues., February 16 and Wed., February 17, 2021

Business Analysis Module 2:

Eliciting and Documenting Requirements

Tues., March 16 and Wed., March 17, 2021

Business Analysis Module 3:

Requirements Analysis and Design Definition

Tues., April 13 and Wed., April 14, 2021

Business Analysis Module 4:

Solution Deployment and Evaluation Tues., May 11 and Wed., May 12, 2021

All classes are scheduled from 8:30 a.m. to 4:30 p.m.

LOCATION: Live-online

PRICE: \$995 per module; course materials included. Payment plan, scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

RING IT UP

DATA SCIENTISTS SERVE MANY ROLES DURING PANDEMIC

By Adam S. Kamras

Big data helps control COVID-19 spread

Although the NBA crowned one titlewinning team in 2020, just as it does in a normal year, every player and essential staff member inside the Walt Disney World bubble in Orlando, Florida, had already earned a ring prior to the resumption of the regular season on July 30.

While the more familiar blinged-out, diamond-encrusted rings continued to be reserved solely for the league's champion, ordinary-looking Oura smart rings-resembling a plain wedding band-were offered to all the players and others on-site. Intended to predict the onset of COVID-19 symptoms up to three days in advance with 90% accuracy, the rings contain sensors that measure body temperature, respiratory functions and heart rate. This data is fed into an algorithm, where it is analyzed by data science professionals trained in the analysis of large datasets, known as big data, to generate a risk score.

With about 21% of U.S. adults regularly wearing a smartwatch or a wearable fitness tracker, according to a 2019 Pew Research Center survey, the NBA is one of several organizations looking to utilize the enormous quantities of data produced by these devices to help stop the spread of the coronavirus. At least four largescale fitness tracker studies are underway, including the Coronavirus Wearables Study, which was launched by Stanford University to determine how wearable devices can track COVID-19 and other infectious diseases. Like they are doing with the NBA's Oura rings, skilled professionals are gathering data from the studies to create algorithms that can determine changes in participants' vital



signs showing they may be contracting an infection.

COVID-19 apps rely on big data

In addition to being used in investigating the role wearable devices can play, big data has had many other functions during the pandemic, such as predicting patient treatment outcomes, monitoring patients as they enter hospitals, identifying promising drug candidates, estimating real-time spread and forecasting future spread. Numerous apps have been developed in response to the coronavirus, and big data figures prominently in many of these programs as well. A COVID-19 app designated for use by authorized clinicians uses artificial intelligence and big data to detect which patients are likely to have severe COVID-19 cases. With more than 4 million users and counting of the COVID Symptom Study app, researchers have been kept busy going through the vast amount of data to better understand the symptoms, assess how fast the virus is spreading in an area and identify who is most at risk.

SmallBizDaily writer Irina Kravchenko explains the importance of big data in the crisis in a June article, "How big data is used in the battle against the coronavirus."

"Coronavirus will obviously become a part of any business strategy," wrote Kravchenko. "It affects our lives, work and communication significantly. By organizing large scopes of data, the world can control the situation in real time, monitor the outbreak and make predictions and decisions driven by accurate data."

Trained professionals needed

With a median base salary of \$107,801 and overall job satisfaction rating of 4 out of 5, data scientist is ranked No. 3 on Glassdoor's list of 50 Best Jobs in America for 2020. Data scientist also holds the No. 3 position in the LinkedIn 2020 Emerging Jobs Report with 37% annual growth. The report says, "It's a specialty that's continuing to grow significantly across all industries."

Looking to help meet this need, the University of Delaware's Division of Professional and Continuing Studies (UD PCS) is continuing to offer its Analytics: Optimizing Big Data Certificate program. Focusing on the unique combination of computational, analytical and communication proficiencies required by the big data field, UD introduces the tools and techniques needed to analyze large datasets in order to make more informed business decisions.

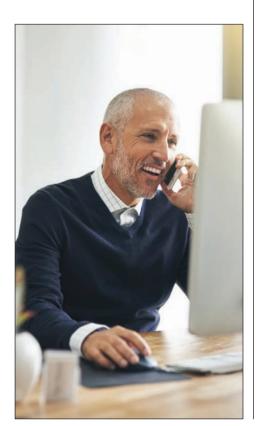
The program is directed at business, marketing and operations managers; financial industry professionals; small business owners; and data analysts or professionals in any field who deal with large amounts of data. Though there are no formal prerequisites, a basic understanding of statistics is required, and prior experience with data management is helpful. Save \$600 and become eligible to earn a University of Delaware Certificate of Completion by registering for all four Business Analysis modules at the same time. Offered at a bundled rate of \$3,380, this equates to more than a 15% discount versus registering for each module individually.

pcs.udel.edu/business-analysis

CREDIT CERTIFICATE | HYBRID-ONLINE

Business Essentials Certificate

Undergraduate credit certificate program focused on business essentials for nonbusiness professionals. See page 30.



MICROSOFT® EXCEL

Regardless of your role in an office, there is a good chance you need to be proficient in the use of Microsoft® Excel. With more than 2 million recent employment postings requiring Microsoft® Excel ability, it is one of the most in-demand occupational skills. The software's broad range of applications can be utilized for everything from simple number crunching to complex business decisions. Our foundational and advanced classes are designed to equip you with the skills needed in today's job market. All students should have Microsoft® Excel 2016 or newer.

NONCREDIT COURSE | LIVE-ONLINE

Microsoft® Excel Essentials

Gain the foundational skill set needed to navigate throughout the Microsoft® Excel application with confidence and acquire familiarity with Excel's data management capabilities. Learn to summarize datasets and prepare a workbook for distribution on a professional level.

WHO SHOULD PARTICIPATE?

- Students, recent graduates and other job seekers who are looking to add marketable skills to their resumes
- Anyone wishing to learn the fundamental operations of Excel
- **SCHEDULE:** Tuesdays, March 2–23, 2021, 6–9 p.m.

LOCATION: Live-online

PRICE: \$475, course materials included. Scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/ms-excel

NONCREDIT COURSE | LIVE-ONLINE

Microsoft® Excel Advanced Concepts

Gain the skill set needed to work with complex datasets using advanced functions and formulas in Microsoft® Excel. Learn to present data insights using advanced charting techniques, set up forms for collaborative workplace projects, and prepare interactive pivot tables for distribution on a professional level.

WHO SHOULD PARTICIPATE?

- Students, recent graduates and other job seekers with Excel skills who wish to learn advanced Excel concepts
- **SCHEDULE:** Tuesdays, April 6–27, 2021, 6–9 p.m.
- LOCATION: Live-online
- PRICE: \$475, course materials included. Scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/ms-excel

NONCREDIT COURSE | LIVE-ONLINE

Microsoft® Excel Advanced Reporting and Analytics

Gain the advanced skills for creating interactive dashboard reports and data visualizations in Microsoft® Excel by using the capabilities of Power View, Power Pivot and DAX formulas. Focus expands from traditional pivot tables to state-of-the-art Power Pivot data modeling. Students will be able to apply these techniques immediately in their work.

WHO SHOULD PARTICIPATE?

 Students, recent graduates and other job seekers with Excel skills who wish to learn advanced Excel reporting and analytics

SCHEDULE: Fall 2021–Dates TBA

LOCATION: Live-online

PRICE: \$475, course materials included. Scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/ms-excel

GENERATING VALUE FOR THE ORGANIZATION

BUSINESS ANALYSTS ARE CHANGE AGENTS

By Adam S. Kamras

Known as the father of modern management for his numerous writings and teachings as a management consultant, educator and author who stressed innovation, entrepreneurship and strategies for dealing with a changing world, Peter Drucker said, "To survive and succeed, every organization will have to turn itself into a change agent."

For many organizations, the leading change agent role is played by the business analyst. In his book, *Business Analysis: Best Practices for Success*, Steven P. Blais wrote, "The business analyst adopts the role of change agent to make sure the solution is accepted by stakeholders throughout the development process and then efficiently placed into production and used to generate value for the organization."

"FUNDAMENTAL BUSINESS ANALYSIS IS NOW MORE IMPORTANT THAN EVER TO HELP COMPANIES NAVIGATE THROUGH CHANGE." —DELVIN FLETCHER

Described by the International Institute of Business Analysis (IIBA) as the practice of enabling change in an organizational context by defining needs and recommending solutions that deliver value to stakeholders, business analysis touches all levels of an organization. Working in the profit, nonprofit and government sectors, a business analyst may be involved in defining strategy, creating the enterprise architecture, and taking a leadership role by identifying the goals and requirements for programs and projects or supporting continuous improvement in technology and processes.



Earn a UD Certificate of Completion

The University of Delaware's Division of Professional and Continuing Studies (UD PCS) continues to educate current and aspiring change agents with its Business Analysis Certificate program. Utilizing version 3.0 of *A Guide to the Business Analysis Body of Knowledge* (BABOK Guide), students will learn the importance of value creation in the role of the business analyst.

Though the modules build on each other, participants can enroll in the series at any point and still benefit from the lessons. Students who register for all four modules in a single transaction will qualify for a bundled rate and be eligible to earn a University of Delaware Certificate of Completion.

Business analysis more important than ever

Like many professions, business analysts have been confronted with the challenges initiated by the COVID-19 pandemic, and they are being tasked with assessing the changes that need to be made to organizations' products and services. With the need to manage profit and loss being as critical as it has ever been, business analysts can help reduce waste from operations as well as within project teams. Delvin Fletcher, IIBA president and CEO, wrote about the growing need for business analysts in a July blog, "Good Business Analysis Is More Important Than Ever."

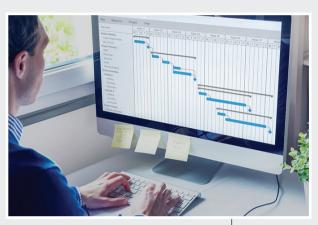
"Every day now brings a news item or business article about the opportunities and risks that COVID-19 is bringing to companies and sometimes entire industry sectors," wrote Fletcher. "Fundamental business analysis is now more important than ever to help companies navigate through change. Not only do I need to understand what I could or should do but also how and when–and how fast."

One of 'best jobs in America'

At a median base salary of \$73,022 and an overall iob satisfaction rating of 3.6 out of 5, business analyst is ranked No. 26 on Glassdoor's list of 50 Best Jobs in America for 2020. In 2019, the BA Times reported that the number of jobs for U.S. business analysts will increase from 364,000 to 2,720,000 by 2020. Based on a 2019 review of its jobs and an analysis of hiring data from its U.S. workforce, Amazon's fastest growing highly skilled jobs over the previous five years were data mapping specialist (832% growth), data scientist (505%), solutions architect (454%), security engineer (229%) and business analyst (160%).

TOUCHING EVERY INDUSTRY

REAL-TIME AND SELF-PACED PROJECT MANAGEMENT PROGRAMS



By Adam S. Kamras

Supporting successful projects

When the Standish Group released its initial edition of The CHAOS Report in 1994, Barbara Cullis took the analysis of the software development industry personally. Working as a programmer at the time, Cullis was appalled to learn that only 16.2% of software projects in the United States were completed on schedule and on budget. Furthermore, the research revealed that a "staggering" 31.1% of the projects were canceled prior to completion.

"I had a big chip on my shoulder and said 'not my projects,' and I became very passionate about exploring project management so I can apply best practices and be more successful," said Cullis.

She joined the Project Management Institute (PMI) in 1996, earned Project Management Professional (PMP) certification in 2000 and has proceeded to have an information technology career spanning more than 25 years in the public and private sectors. Currently the faculty program director of technology projects and an instructor of management systems in the University of Delaware's Alfred Lerner College of Business and Economics, the self-proclaimed "IT project management geek" conducts an IT Project Management Certificate program presented by UD's Division of Professional and Continuing Studies (UD PCS).

"IT project management is all about applying the tools and techniques of project management to successfully deliver the stated benefits a project

must create to advance an organization within the context of an IT environment," said Cullis, who teaches a similar class to undergraduates in the Lerner College. "It's applying project management's best practices to IT and all of the constraints in that area."

Guiding the work-from-home transition

Thanks to the countless work-from-home orders in response to COVID-19, Cullis said business investments instantly had to shift to infrastructure, cloud applications, security and a huge change-management initiative that many people overlooked and underestimated. According to data provided by Gallup, the percentage of employed Americans working from home doubled from 31% in the middle of March to 62% by the end of the month.

"At the outset of COVID, companies had to stop, pivot on a dime and react," said Cullis. "At first, everyone did it fast, and now organizations are going back and doing it well because what we are seeing is not temporary. We are now all acknowledging that COVID is changing the way companies are going to work. The IT project managers are running these updates to support remote productivity."

Complementing the project management portfolio

The IT Project Management Certificate class enhances the UD PCS portfolio of project management instruction, which includes its long-running, popular Project Management Certificate program as well as a selection of 13 self-paced online courses, which allow students to learn anytime and from anywhere.

"We are pleased to build on the success of our Project Management Certificate program by substantially increasing our related selection of in-demand courses," said Vic Wang, UD PCS manager of customized learning. "Whether students are looking for real-time or self-paced education, we have a wide variety of online options to help them increase their skill sets, prepare to gain valuable industry-recognized certifications and advance in their careers."

Project managers in demand

"The beauty of project management is it touches every industry," said Cullis. "The project management job market is very hot across the board and looks to remain that way in the future."

At a median base salary of \$77,896 and an overall job satisfaction rating of 3.6 out of 5, project manager is ranked No. 21 on Glassdoor's list of 50 Best Jobs in America for 2020. The Project Management Job Growth and Talent Gap Report 2017-2027 stated that employers in the United States will need 8.8 million individuals working in project management-oriented roles by 2027. With much of the available talent reaching retirement age as opportunities are growing, an annual average of 213,974 newly created positions in project managementoriented industries is expected during this period.

NONCREDIT CERTIFICATE | ONLINE

NEW! Nonprofit Management Essentials

In these challenging times, there is no better time to change the world through a career in the nonprofit sector. Gain an understanding of nonprofit organizations and the issues managers face in this impactful and growing field. Participants will be exposed to several areas of responsibility for nonprofit leaders, including strategy, board governance, budgeting, fundraising, grant writing, managing employees and volunteers, and more. Course is taught online using a combination of synchronous and asynchronous methods. Synchronous content includes class discussions and activities via Zoom.

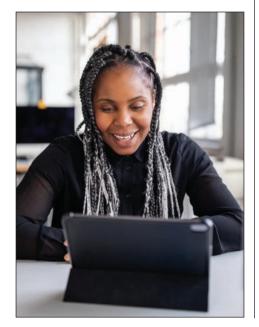
WHO SHOULD PARTICIPATE?

- Early-career professionals working in the nonprofit sector
- Midcareer professionals transitioning from other sectors
- SCHEDULE: Tuesdays, February 9–May 18, 2021, 6–8 p.m.

LOCATION: Online

PRICE: \$1,500. Discounts and financial assistance options available. Package pricing available for organizations that send more than one person from their nonprofit team.

pcs.udel.edu/nonprofit-training



NONCREDIT CERTIFICATE | LIVE-ONLINE

Project Management Certificate–Updated curriculum!

Learn project management best practices and theories

Project Management and organizations in every sector use project management to achieve breakthrough results. The powerful and versatile tools of project management are transferable to any work environment and can be used to manage any project. Participants will learn by applying these tools and experiencing both the art and science of managing a successful project through the project life cycle.

Focusing on change management to assist students in attaining the Project Management Institute's (PMI)® Project Management Professional (PMP)® or Certified Associate in Project Management (CAPM)® designation, the curriculum applies PMBOK® (A Guide to the Project Management Body of Knowledge®) principles and the PMI Agile Practice Guide, as well as references from other leading publications.

WHO SHOULD PARTICIPATE?

- Newly promoted/aspiring project managers
- Project leaders interested in achieving the next level of management skills
- Project managers seeking entry into the Project Management Institute's PMP[®] certification process

SCHEDULE

- Session 1: Mondays, February 15–April 19, 2021, 6–9:30 p.m.
- Session 2: Thursdays, March 17–May 19, 2021, 6–9:30 p.m.

LOCATION: Live-online (both sessions)

PRICE: \$2,595. Payment plan, scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

This certificate is a great starting point for attaining the Project Management Institute's (PMI)® Project Management Professional (PMP)® designation. This program meets the education requirement for the Project Management Institute (PMI)® credential.

pcs.udel.edu/project

NONCREDIT CERTIFICATE | LIVE-ONLINE

IT Project Management Certificate

Information technology is at the heart of every organization, and project management is a fast growing, crosscutting professional discipline spanning all industries. Leading successful value-adding IT projects in an organization requires leadership, knowledge of its business strategy and technical project management skills.

Covering Waterfall, Agile and Hybrid methodologies, this program examines the breadth of the IT project management discipline. A foundation for directly applying the tools, processes and methods to support the management and delivery of successful IT projects, including value creation through strategic execution of an IT project portfolio, is provided. We will focus on how an information technology project methodology (ITPM) is applied to create measurable organizational value (MOV).

PREREQUISITE: Students must be familiar with the components of an IT environment and application architecture. Programming skills are not required.

WHO SHOULD PARTICIPATE?

- Newly appointed or aspiring IT project managers
- Experienced project leaders who want to take their management skills to the next level or shift to a hybrid approach
- IT managers who want to apply the discipline of project management to make their organizations more effective and more competitive
- Project managers seeking entry into the Project Management Institute's PMP® (Project Management Professional) certification process
- **SCHEDULE:** Thursdays, March 4–May 20, 2021, 6–9:30 p.m.

LOCATION: Live-online

PRICE: \$2,795. Textbook not included. Payment plan, scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/it-project

WINNING THE SALES RACE

TRAINING SALES OPS 'JOCKEYS'

By Adam S. Kamras

Described by research and advisory firm SiriusDecisions as a "force multiplier for improving sales productivity" and "the critical link between the development and the execution of the sales strategy and go-to-market strategy," sales operations is believed to have been established in the 1970s when Xerox created a group to take on activities such as sales planning, compensation, forecasting and territory design.

More than 40 years later, the duties have expanded and sales operations professionals are present throughout the business world. The *Harvard Business Review* said the concept of sales operations or "sales ops" has become widely accepted as essential for effective sales management.

LinkedIn simplified the definition of the role by saying an organization's sales professionals are like a team of thoroughbred racehorses that might be incredibly powerful and experienced but will not move as efficiently to the finish line without the guidance of a jockey–played by the sales operations professional.

Taught by industry professionals

Looking to help organizations win the sales race by training their "jockeys," the University of Delaware's Division of Professional and Continuing Studies (UD PCS) is collaborating with GreenFig to offer a 10-week online, self-paced Sales Operations Science Certificate program. Designed to cover the key areas required to be effective at driving the productivity and capacity of a company's selling resources, the program is taught by industry professionals, including Irina Petkova, CRM (customer relationship management) manager at Clever, Inc.

"I have been given a really amazing opportunity to condense everything I have learned over the years, pull in



advice from various subject-matter experts and present it to learners looking to receive preparation for the modern business world," said Petkova. "I have had the good fortune of learning from

"BY THE END OF THE CLASS, I WAS LEADING A SALES OPERATIONS FUNCTION WITH A LOT OF CONFIDENCE." —MICHAEL BUTERA

subject-matter experts who were willing to teach me and be mentors, so I wanted that kind of experience to be

Earn Salesforce Trailhead badges

as accessible as possible for others."

The curriculum for the program was created in conjunction with Salesforce, a cloud-based software company that provides customer relationship management service and also sells a complementary suite of enterprise applications focused on customer service, marketing automation, analytics and application development. Thanks to this association, students in the program can earn 14 Salesforce Trailhead badges through the company's learning experience platform.

Throughout the 10 weeks, students will

create a Strategic Sales Operations Playbook for a real-world company that can be shared with prospective employers and used as a reference guide. Michael Butera, associate director, customer success at Saama Technologies, said he has referred to his Strategic Sales Operations Playbook several times since completing the course last spring, and it is a nice go-to as a refresher of items he can apply to his job.

"I recommend this course because of the huge value that I personally got out of it," said Butera. "I was able to apply things immediately every single week after every module. By the end of the class, I was leading a sales operations function with a lot of confidence."

Aiding businesses through pandemic

Like many professions, the COVID-19 pandemic has put sales operations professionals to the test and given them a chance to show their value.

"There is a great deal of uncertainty regarding the time it will take for businesses to return to their pre-COVID-19 operating levels," said Steve Rietberg, senior director analyst for the sales practice of Gartner, a research and advisory company. "In the meantime, sales operations leaders should bear the brunt of softening demand and supply chain disruptions and confront the most pressing impacts caused by the initial wave of changes the pandemic presents."

NONCREDIT CERTIFICATE | ONLINE

Sales Operations Science Certificate

The Sales Operations Science Certificate program is uniquely designed to give you the skills and applied learning experience to kick-start your career or take it to the next level in just 10 weeks. Delivered fully online, this comprehensive program is taught by industry experts and covers all the key areas required to be effective at driving the productivity and capacity of a company's selling resources. Along with creating a Strategic Sales Operations Playbook to help a real-world company engage with more prospects, produce more pipeline, improve key processes, make the most of its data and aenerate more revenue, vou will walk away with a curated collection of Salesforce Trailhead trails and badges, including Sales Performance Analysis, Sales Team Enablement, Territory Management, Formulas and Validations, Reports and Dashboards, and Data Management. Weekly, you should expect to spend four to six hours engaging with on-demand content created by industry experts, including activities and assignments in the online learning portal. Additionally, weekly live-online, two-hour, optional but recommended group sessions are available for engaging in real time with peers, experts and mentors.

WHO SHOULD PARTICIPATE?

- Recent college graduates considering a role in a sales capacity
- Those aspiring to enter or reenter a sales-related profession and wanting to build new skill sets and earn related Salesforce credentials
- Sales, sales operations or business analyst professionals with one to three years of experience looking to upgrade their skill sets and long-term growth opportunities
- Working professionals looking to make a shift into sales operations or expanding potential by becoming more knowledgeable about other aspects of a business, such as finance, business operations or other related areas
- Anyone who wants to acquire new and in-demand technology skills in a sales role

SCHEDULE: January 25-April 2, 2021, with optional live-online sessions on Wednesdays, 7–9 p.m. Additional start dates may be made available; please check our website.

LOCATION: Online

PRICE: \$1,995, course materials included. Potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/sales-operations

NONCREDIT CERTIFICATE | ONLINE

Fundamentals of Social Media Marketing Certificate

In today's ever-changing landscape, organizations need effective social media marketing strategies to reach their full potential. This program introduces students to leveraging social media to build and extend brand awareness, increase visibility, engage current and potential customers, cultivate brand ambassadors, gain new customers, promote growth and support organizational goals.

Students will learn the fundamentals and best practices—monitoring and listening, audience engagement, content curation, campaign planning and execution, tools and resources, and measuring results for using social media for marketing on current, new and emerging platforms, including Facebook, Twitter, LinkedIn, Instagram, Snapchat, YouTube and Pinterest.

The course begins with a live-online introductory session on the first night. For the remaining lessons, students will watch recorded lectures at their convenience and have until Sunday to complete each week's assignments. The instructor will be available to meet weekly during live videoconferencing office hours. Participants will conduct a project for an organization of their choosing. As they explore leveraging social media platforms to support organizational goals, they can opt to receive detailed, constructive feedback on all assignments.

WHO SHOULD PARTICIPATE?

• Business owners who want to utilize or optimize social media marketing to reach their clients

- Aspiring social media managers
- Marketing and communication professionals
- Consultants
- Nonprofit employees and volunteers
- Sales professionals
- Anyone looking to start a social media marketing business
- **SCHEDULE:** March 8–May 2, 2021 (self-paced online course with first session live-online and weekly scheduled assignments)

LOCATION: Online

PRICE: \$995. Payment plan, scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/socialmedia

NONCREDIT CERTIFICATE | ONLINE

Advanced Social Media Marketing for Business Certificate

In today's digital world, brands, businesses and organizations are turning to social media for advertising, customer service, human resources, market research, revenue growth and more. There are audiences to be engaged, communities to be managed, influencers and advocates to be guided, content to be created, ad strategies to be developed, profiles to be optimized, and an assorted laundry list of daily tasks that need to be addressed.

UD's Advanced Social Media Marketing for Business Certificate course teaches students with fundamental to midlevel social media marketing skills to effectively and successfully leverage the power of social media to support organizational goals.

Participants will conduct a project for an organization of their choosing and receive in-depth, hands-on experience to research, plan, develop, integrate, execute and analyze the outcomes of comprehensive social media marketing strategies, integrated campaigns, targeted content and paid placement.

Students master skills to drive engagement through targeted, innovative social media marketing campaigns, gaining firsthand experience with industry standard tools such as Sprout Social and Rival IQ. Class members learn methodologies for creating, executing and evaluating goal-oriented social media marketing strategies across multiple social media platforms.

Classes include online lectures, multimedia demonstrations, detailed content and examples, case studies, open online discussions, and testimonials from businesses successfully using social media marketing. Past guest speakers have included industry experts Jason Falls and Samantha Toscano.

This class offers dynamic, interactive, fastpaced and highly engaging content to ensure participants are ready to take on today's social media landscape. Students will have until Sunday to complete each week's assignments while collaborating and working on the group project. Plan to allocate eight to 12 hours per week toward this program.

WHO SHOULD PARTICIPATE?

- Aspiring and current social media managers
- Marketing and communication professionals
- Consultants
- Nonprofit employees and volunteers
- Business owners
- Anyone looking to start a social media marketing business
- SCHEDULE: February 8–May 16, 2021 (self-paced online course with weekly scheduled assignments and deadlines)

LOCATION: Online

PRICE: \$2,995. Payment plan, scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/socialmedia

NONCREDIT COURSES | ONLINE

Self-Paced Programs

In collaboration with MindEdge, a leader in online education founded by Harvard University and Massachusetts Institute of Technology educators in 1998 with a mission to improve the way the world learns, we are pleased to offer the following programs that enable you to learn anytime, anywhere and across multiple devices. Check our website for the full list of offerings as new programs may be added based on demand.

- Agile Certified Practitioner (PMI-ACP)® Exam Prep-\$549
- Challenges for Agile Teams-\$179
- Integrating Agile into a Waterfall Environment-\$125
- Introduction to Agile-\$299
- Principles of Scrum-\$349
- CAPM® Exam Prep Course-\$599
- CompTIA Project+® Exam Prep Course— \$250
- PgMP® Exam Prep Course-\$599
- Project Risk Management: PMI-RMP® Exam Prep-\$599
- Microsoft® Project Basics-\$99
- Microsoft® Project Intermediate-\$99

Project Management Professional Development Unit Bundles

- Leadership PDU Bundle-\$299
 Strategic PDU Bundle-\$299
- Sindlegic PD0 Bundle-5.

LOCATION: Online

Potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/self-paced

NONCREDIT CERTIFICATE | LIVE-ONLINE

Women's Leadership Online Certificate

Supporting women's leadership paths by developing clarity, competence and community

Organizations benefit from diverse leadership, but many women continue to face a variety of challenges in their leadership journey. This timely, interactive program provides resources, mentorship and a dynamic forum where participants can develop clarity, competence and community to support their leadership goals.

Expert facilitators lead focused cohorts of 10 women or fewer through the program to enable deeper learning and to build strong professional networks through small group settings. Participants focus on defining and developing leadership vision, executive communication skills, confidence and emotional intelligence, and building organizational culture for diversity and inclusion. This program is offered by the Women's Leadership Initiative at UD.

WHO SHOULD PARTICIPATE?

- Women professionals interested in pursuing leadership roles who are approximately five to 10 years into their careers
- Organizations wishing to invest in a continued commitment to diversity and inclusion efforts by increasing pathways for women's leadership
- **SCHEDULE:** Four live-online sessions held Fridays, 9–11 a.m. on February 26, March 12, March 26 and April 9, 2021, plus four self-paced modules to be completed independently.
- **PRICE:** Special launch rate of \$1,200 for the upcoming spring 2021 session, thereafter \$1,495. Organizations can enroll dedicated cohorts of up to 10 participants for a group rate of \$8,000. Additional discounts available for nonprofits. Economic Incentive Scholarships available to qualified individuals.

1.6 Continuing Education Units

lerner.udel.edu/wli-online

Drone training program

Free Live-Online Information Session

Learn more about this program, speak with instructors and ask questions.

Wednesday, January 20 7–8 p.m.

Meeting information sent upon registration pcs.udel.edu/info-session NONCREDIT COURSE | LIVE-ONLINE

Professional Drone Pilot: Ground School and FAA Part 107 Test Prep

Are you certified?

Legally flying a drone for commercial use requires a Federal Aviation Administration (FAA) Part 107 remote pilot certificate. Dedicated to serving all aspiring professional drone pilots, UD PCS has prepared over 200 individuals for this valuable certification since the inception of its award-winning Ground School and FAA Part 107 Test Prep program in 2018. During this intensive course, flight instructors provide comprehensive live-online classroom training by addressing regulations, airspace, weather, loading and performance, operations, and other vital topics.

The program can also be presented to groups of any size via private, on-site delivery. Customized training clients have included numerous agencies and organizations throughout the region. Please contact UD PCS to discuss pricing and scheduling options.

SCHEDULE: Saturday, April 17, Sunday, April 18 and Saturday, April 24, 2021, 8 a.m.–1 p.m.

LOCATION: Live-online

PRICE: \$395. Scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).

pcs.udel.edu/drones

DRONES DELIVERING DURING PANDEMIC



By Adam S. Kamras

While the COVID-19 pandemic has led to a continual parade of ground delivery vehicles in every neighborhood, drones operated by trained, licensed remote pilots are also flying into some communities with packages of food, medications and other items.

Owned by Google's parent company Alphabet, Wing became the first delivery drone to receive Federal Aviation Administration (FAA) approval to conduct test flights in the U.S. in April 2019. Wing began delivering household goods and meals to a limited area of Christiansburg, Virginia, six months later and has experienced a jump in demand during the pandemic, especially for medicine, toilet paper and groceries.

Other COVID-19-inspired uses of drones have included sanitizing city streets, delivering personal protective equipment to hospitals and transporting coronavirus test samples from health facilities to laboratories.

New York Times writer Alex Williams outlined some of the various uses of drones during the crisis in a May article, "The Drones Were Ready for This Moment."

"Coronavirus has been devastating to humans, but may well prove a decisive step toward a long-prophesized Drone Age, when aerial robots begin to shed their Orwellian image as tools of war and surveillance and become a common feature of daily life, serving as helpers and, perhaps soon, companions," wrote Williams.

Award-winning program

The University of Delaware's Division of Professional and Continuing Studies (UD PCS) has been educating students for this moment since March 2018, when it launched its awardwinning Ground School and FAA Part 107 Test Prep program. The program provides comprehensive training and prepares drone pilots for the Federal Aviation Administration's airman knowledge test, which must be passed to earn the FAA Part 107 remote pilot certificate that is required to legally fly a drone for commercial use. For commercial drone delivery, carrying the property of another for compensation beyond the visual line of sight requires Part 135 certification, which is the highest level of drone pilot certification.

In-demand training

The FAA projects an increase in commercial drones operating in U.S. airspace from roughly 110,000 in 2018 to 450,000 in 2022. Over the same period, the agency expects the number of commercial drone pilots to climb from about 70,000 to 300,000.

Miriam McNabb, editor of *Dronelife*, an industry news site; and CEO of Job for Drones, an online drone services marketplace; told the *New York Times*, "This is the moment when the drone industry gets to show what it can do. Things like drone delivery are lifesaving applications that are changing people's perceptions of drones."

Education programs

CREDIT DEGREE | HYBRID-ONLINE

Master of Arts in Economics and Entrepreneurship for Educators

Hybrid/online graduate program preparing educators teaching economic, entrepreneurial and financial literacy. See page 30.

CREDIT DEGREE | ONLINE

Master of Education in Teacher Leadership

Online graduate degree program focused on equipping teachers to be leaders in the classroom and in their schools. See page 31.

CREDIT DEGREE | ONLINE

Master of Education in Educational Technology (M.Ed.)

Online graduate degree designed to provide both a theoretical and a practical grounding in educational technology methods and techniques. Program content aligns with the International Society for Technology in Education (ISTE) and the Association for Educational Communications and Technology (AECT). See page 31.

CREDIT DEGREE | ONLINE

Master of Education in Exceptional Children and Youth (M.Ed.)

Online graduate degree program preparing teachers to meet the academic, social and behavioral needs of students with exceptional learning needs across all grade levels. See page 31. CREDIT DEGREE | ONLINE

Master of Education in Literacy (M.Ed.)

Online graduate degree program preparing teachers for certification and career opportunities as reading or literacy specialists in their schools and districts. See page 31.

CREDIT COURSE | IN-CLASS

Alternative Routes to Teacher Certification (ARTC)

ARTC offers an alternative route to traditional teacher certification in Delaware. Through ARTC, qualified individuals complete certification requirements while employed as full-time teachers via education coursework and intensive, school-based supervision and mentoring. For details, see artc.udel.edu.

NONCREDIT COURSE | LIVE-ONLINE

Praxis Core Live-Online Test Prep

The Praxis Core Live-Online Test Prep courses (Core Math 5732 and Core Reading and Writing 5712/5722) are designed to help you improve your skills, confidence and score, all of which increase your chance of admission into the teacher preparation or certification program of your choice.

pcs.udel.edu/praxis-test-prep

PROFESSIONAL CERTIFICATION PROGRAM

UD Montessori Teacher Residency (UDMTR)

The University of Delaware's Montessori teacher training program combines in-school teacher residency with coursework and coaching to provide comprehensive teacher preparation. Upon successful completion, participants receive a MACTEaccredited (Montessori Accreditation Council for Teacher Education) diploma. UD's program is relevant for public and independent Montessori schools and teachers interested in training for the Montessori classroom or expanding Montessori opportunities in their schools. UDMTR provides support to existing Montessori schools with coaching and professional development tailored to each school's needs. In partnership with Montessori Works-Delaware, UDMTR supports the development of new Montessori PreK-6 district and charter schools and early childhood programs. Next teacher cohort launches summer 2021.

pcs.udel.edu/udmtr



Engineering and science programs

CREDIT CERTIFICATE | ONLINE

Composites Manufacturing and Engineering Certificate

Intended to provide the practicing engineer a strong foundation in the processingstructure-property relations in advanced fiber composites. See page 32.

CREDIT CERTIFICATE | ONLINE

Graduate Certificate in Applied Bioinformatics

Online graduate certificate program aimed at working professionals in the life sciences or in the data and computational sciences who wish to gain knowledge and practical experience in bioinformatics. See page 31.

CREDIT CERTIFICATE | ONLINE

Graduate Certificate in Biomedical Informatics and Data Science

Online graduate certificate program aimed at working professionals in the life sciences or in the data and computational sciences who wish to gain knowledge and practical experience in biomedical informatics and data science. See page 31.

CREDIT CERTIFICATE | ONLINE

Graduate Certificate in Cybersecurity

Online or on-campus graduate certificate for IT, engineering, computer science or business professionals wishing to become security professionals or incorporate security knowledge and considerations into their existing career. See page 32. CREDIT CERTIFICATE | ONLINE

Graduate Certificate in Minerals, Materials and Society

Graduate certificate aimed at industry, government and civil society professionals working across mineral and extractive supply chains. See page 32.

CREDIT DEGREE | IN-CLASS, ONLINE

Master of Science in Cybersecurity

Online or on-campus graduate degree for IT, engineering, computer science or business professionals wishing to become security professionals or incorporate security knowledge and considerations into their existing career. See page 32.

CREDIT DEGREE | ONLINE

Master of Science in Electrical and Computer Engineering

Online graduate degree aimed at engineers with prior degrees in electrical, computer or mechanical engineering, or in computer science or mathematics. See page 32. CREDIT DEGREE | ONLINE

Master of Science in Mechanical Engineering (MSME)

Covers not only the foundations of solid mechanics, fluid mechanics, heat transfer and dynamics, but also electives in biomechanics, clean energy and environment, composite materials and manufacturing, energy-efficient mobility systems and smart cities, robotics and controls and more. See page 32.

CREDIT CERTIFICATE | ONLINE

Railroad Engineering Certificate

Online graduate certificate program designed for engineering professionals who wish to expand their knowledge of railroad engineering for advancement in the railroad industry. See page 32.



Food and hospitality program

NONCREDIT CERTIFICATE | ONLINE

HR Competencies for **Restaurant Managers**

Offered free for Delaware residents

This dynamic online program addresses the unique human resources issues faced by restaurant managers, supervisors and staff, and features updated course content relating to the impact of the coronavirus pandemic on the hospitality and restaurant industry.

Developed in partnership with the Delaware Restaurant Association and taught by experts in labor law, human resources, restaurant operations and hospitality business research, this program benefits restaurant and food service general managers, supervisors and chefs, as well as anyone on the restaurant team who aspires to advance in the industry. Key topics include HR law, recruitment and retention, change leadership and organizational culture.

This program is offered at no cost to 60 Delaware residents through funding provided by the CARES Act (Coronavirus Aid, Relief, and Economic Security Act of 2020).

SCHEDULE: January 19-March 15, 2021 or February 1–March 29, 2021. Each online cohort is limited to 30 participants.

PRICE: \$995, program materials included. Discounts, financial assistance available. Offered free for up to 60 Delaware residents. To be considered for arantfunded training, please email karen@delawarerestaurant.org.

pcs.udel.edu/restaurant-hr



POWER UP YOUR CAREER! FREE ONLINE SERIES

Career and personal strategies to navigate the current economy

The University of Delaware's Division of Professional and Continuing Studies (UD PCS) is again offering its "Power Up Your Career" seminar series free of charge this spring.

The professional development mini-program is open to anyone looking for practical and immediately applicable career tips and resources like strategies for improving work productivity, virtual meetings and more. Upcoming topics include:

- Common Productivity Challenges and How to Solve Them (February 13)
- Virtual Meeting Etiquette: Best Practices and Protocols for Productivity (March 13)
- Improving Your Personal Information Security and Awareness (April 10)
- Cultural Awareness and Diversity in the Workplace (May 8)

Power Up Your Career seminars have been a regular Professional and Continuing Studies offering for nearly a decade. The online webinar series is currently free and open to the public with the goal of offering relevant career tips and resources to members of the community and our region facing professional and personal challenges during the ongoing pandemic.

The free webinars received more than 700 registrations this summer and fall, covering subjects like career shifting, resume updating, social media presence, networking and virtual interviewina.

"This seminar series is the perfect venue for reaching out to the community to share career tips and strategies relevant for the current environment," said UD's Lynn Fishlock, series coordinator and program manager for UD's Division of Professional and Continuing Studies. "Career coaches Gay Lynch and Andrea Abernethy enthusiastically stepped up to the plate for this series, because they too understand the many challenges people are facing right now," added Fishlock.

"We're especially pleased to offer this series to the community at this time," added Fishlock. "We hope the sessions can help participants become better prepared and positioned to successfully meet the challenges they may be facing."

Visit pcs.udel.edu/power-up for schedule, session details and to RSVP.

Healthcare/Health sciences programs

Free Live-Online Information Session

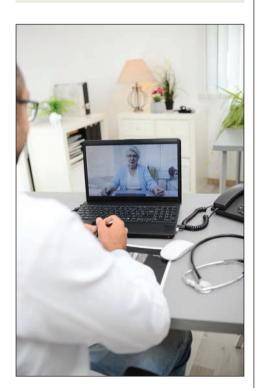
Join us for the following live-online information sessions to learn more about spring 2021 professional development programs, speak with instructors and ask questions about the programs you're interested in.

Wednesday, January 20

7–8 p.m. Telehealth Coordinator

Thursday, January 21 7–8 p.m. Clinical Trials Management

Meeting information sent upon registration pcs.udel.edu/info-session



NONCREDIT CERTIFICATE | ONLINE

Advanced Telehealth Coordinator Online Certificate

Learn to coordinate telehealth technologies to improve access to healthcare specialties and services

Telehealth initiatives hold exciting potential to address healthcare access issues from shortfalls in critical healthcare specialties and accessibility issues in underserved geographic locations. Telehealth also provides innovative ways to meet the demands of an aging population, reduce inappropriate use of emergency departments, prevent hospital readmissions, bring care to the most appropriate setting and more. This 15week program provides the foundations of telehealth for participants interested in utilizing it for the delivery of healthcare.

WHO SHOULD PARTICIPATE?

Clinicians and administrators from a wide variety of healthcare disciplines within behavioral and medical healthcare, including:

- Physicians, physician assistants
- Dentists, dental hygienists
- Nurses, nurse practitioners
- Health educators
- Counselors
- Social workers
- Physical therapists
- Occupational therapists
- Speech therapists
- IT professionals
- Prior telehealth experience not required
- **SCHEDULE:** February 8–May 17, 2021 (online course with some scheduled requirements and assignments)
- PRICE: \$1,495, program materials included. Payment plan, potential discounts available: Early registration, Military, UD student or alum, 2 or more (group).

4.5 Continuing Education Units

pcs.udel.edu/telehealth

NONCREDIT CERTIFICATE | ONLINE

Clinical Trials Management Online Certificate

Prepare for diverse career opportunities in this dynamic and challenging field

Opportunities in the field of clinical trials management range from the principal role of investigator to the supportive tasks surrounding regulatory compliance, scientific writing, marketing, data management and more. Employment settings include pharmaceutical, biotechnology, medical device companies, contract research, hospitals, educational institutions and independent contractors. This program covers site management, data management, U.S. regulatory and legal implications, safety and auditing, and marketing a product, including core concepts consistent with the Association of Clinical Research Professionals (ACRP) certification exams, a valuable credentialing opportunity for clinical research professionals. For exam details, including eligibility requirements, visit acrpnet.org.

WHO SHOULD PARTICIPATE?

- Clinicians and other professionals currently involved in the clinical trials process
- Professionals with a strong science or healthcare-related background wishing to expand their knowledge in the clinical trials field
- **SCHEDULE:** February 8–May 10, 2021 (online course with some scheduled requirements and assignments)
- PRICE: \$2,125, program materials included. Potential discounts available: Early registration, Military, UD student or alum, 2 or more (group).
- 2.0 Continuing Education Units
- pcs.udel.edu/clinical-trials

		PROGRAMS AT A GLANCE	A GLA	NCE			
SUBJECT	PROGRAM	DATES/TIME	LOCATION	PRICE	DELIVERY METHOD	FORMAT	PG. NO.
BUSINESS & IT	Analytics: Optimizing Big Data	Mon, Feb. 15–May 19, 6–9:15 p.m.	Live-online	\$2,895	Live-online	Certificate	4
	Business Analysis	Feb. 16–17, March 16–17, April 13–14, May 11–12 8:30 a.m.–4:30 p.m.	Live-online	\$995/module or \$3,380/certificate bundle	Live-online	Certificate	4
	Business Essentials		Online		Online	Certificate	30
	Microsoft® Excel Essentials	Tues., March 2–23, 6–9 p.m.	Live-online	\$475	Live-online	Course	9
	Microsoft® Excel Advanced Concepts	Tues, April 6–27, 6–9 p.m.	Live-online	\$475	Live-online	Course	6
	Microsoft® Excel Advanced Reporting and Analytics	Fall 2021–Dates TBA	Live-online	\$475	Live-online	Course	6
	Master of Accounting Practice (MAP)				Online	Degree	30
	Master of Arts in Economics and Entrepreneurship for Educations (M.A.E.E.E.)	for Educations (M.A.E.E.E.)			Online	Degree	30
	Master of Arts in Strategic Communication (M.A.)				Online	Degree	30
	Master of Business Administration (MBA)				Online	Degree	30
	Master of Public Administration (MPA)				Online	Degree	33
	Master of Science in Applied Statistics (M.S.)				Online	Degree	30
	Master of Science in International Business (M.S.				Online	Degree	30
	Nonprofit Management Essentials	Tues., Feb. 9–May 18, 6–8 p.m.	Online	\$1,500	Online	Certificate	6
	Project Management	Mon, Feb. 15–April 19, 6–9:30 p.m. Thurs, March 17–May 19, 6–9:30 p.m.	Live-online Live-online	\$2,595 \$2,595	Live-online Live-online	Certificate Certificate	66
	IT Project Management	Thurs, March 4–May 20, 6–9:30 p.m.	Live-online	\$2,795	Live-online	Certificate	6
	Sales Operations Science	Jan. 25–April 2, 7–9 p.m. Check pcs.udel.edu/sales-operations for additional start dates	Online dates.	\$1,995	Online	Certificate	F
	Self-Paced Programs	Classes start anytime	Online	Various	Online	Course/Certificate	te 12
	Social Media Marketing (Fundamentals)	March 8–May 2	Online	\$995	Online	Certificate	=
	Social Media Marketing for Business (Advanced)	Feb. 8–May 16	Online	\$2,995	Online	Certificate	=
	Socially Responsible and Sustainable Business	Four virtual/online classes	Online		Online	Course	33
	Socially Responsible & Sustainable Apparel Business	8			Online	Certificate	30
	Women's Leadership	Fri, Feb. 26, March 12, 26 and April 9, 9–11 a.m. plus four self-paced modules	Live-online	\$1,200	Online	Certificate	12
DRONE TRAINING	Drone: Ground School & FAA Part 107 Test Prep	Sat, April 17, Sun, April 18, Sat, April 24, 8 a.m.–1 p.m.	Live-online	\$395	Live-online	Course	13
EDUCATION	M.A. in Economics & Entrepreneurship for Educators				Hybrid-online	Degree	30
	Master of Education in Teacher Leadership				Online	Degree	31
	Master of Education in Educational Technology (M.Ed.)	Ed.)			Online	Degree	31
	Master of Education in Exceptional Children and Youth (M.Ed.)	uth (M.Ed.)			Online	Degree	31
	Master of Education in Literacy (M.Ed.)				Online	Degree	31
	Montessori Teacher Residency				Hybrid and In-Classroom	Certificate	14
	Alternative Routes to Teacher Certification (ARTC)				In-class	Course	14
	Praxis: Core Math or Reading & Writing	Visit pcs.udel.edu/praxis-test-prep for details.			Live-online	Course	4
ENGINEERING &	Graduate Certificate in Applied Bioinformatics				Online	Certificate	3]
SCIENCE		ł Data Science			Online	Certificate	31
	Graduate Certificate in Composites Manufacturing and Engineering	and Engineering			Online	Certificate	32

	Graduate Certificate in Cybersecurity				Online	Certificate	32
	Graduate Certificate in Minerals, Materials and Society	iety			Online	Certificate	32
	M.S. in Cybersecurity				Online	Degree	32
	M.S. in Electrical and Computer Engineering				Online	Degree	32
	M.S. in Mechanical Engineering (MSME)				Online	Degree	32
	Railroad Engineering Certificate				Online	Certificate	32
FOOD & HOSPITALITY	HR Competencies for Restaurant Managers	Jan. 19–March 15, or Feb. 1–March 29	Online	\$995		Certificate	91
HEALTHCARE &	Advanced Telehealth Coordinator Online	Feb. 8–May 17	Online	\$1,495	Online	Certificate	17
HEALTH	Clinical Trials Management	Feb. 8-May 10	Online	\$2,125	Online	Certificate	17
OCIEINCED	Continuing Dental Education Symposium	MonFri, July 19–23, 8 a.mnoon	Rehoboth Beach	See page 21.	On-site	Conference	21
	Dietetic Internship				Online	Certificate	33
	Doctor of Nursing Practice				Online	Degree	33
	Eastern Shore Medical Symposium	June 2021, 3-day virtual conference, for details visit pcsudel.edu/esms.	Online	See page 21.	Live-online	Conference	21
	Molecular Diagnostics				Hybrid-online	Certificate	33
	RN Refresher	Starts Feb. 3	Online	See page 22.	Online	Course	22
	RN to BSN				Online	Degree	29
LAW	Paralegal Certificate	Aug. 30, 2021-July 20, 2022	Wilmington	\$3, 800	In-classroom	Certificate	23
	Advanced Paralegal: E-filing	Late 2021	Wilmington		In-classroom	Course	23
	Advanced Paralegal: E-discovery	Late 2021	Wilmington		In-classroom	Course	23
	LSAT Prep	Multiple live-online offerings; See pcsudel.edu/lsat-test-prep	Live-online	\$995	Live-online	Course	28
PRE-COLLEGE	Summer Bridge Program in Mathematics	Multiple live-online offerings; visit pcs.udel.edu/summer-bridge for details.	Live-online	\$299	Live-online	Course	25
SAFETY	Certified Occupational Safety Specialist (COSS)	Multiple live-online offerings; See pcs.udel.edu/safety.	Live-online	\$2,099	Live-online	Course	26
	Certificate for Occupational Safety Managers (COSM	Certificate for Occupational Safety Managers (COSM) Multiple live-online offerings; See pcs.udel.edu/safety.	Live-online	\$2,289	Live-online	Course	26
	SAF Frontline Safety Training	WedFri, Feb. 24–26 or July 28–30, 9 a.m.–3 p.m.	Live-online	\$649	Live-online	Course	27
TEST PREP	ACT Prep	Multiple live-online offerings; visit pcsudel.edu/sat-test-prep for details.	Live-online	\$475	Live-online	Course	28
	DAT Prep	Multiple live-online and self-paced offerings; visit pcs.udel.edu/dat-test-prep for details.	Live-online	\$875/\$750	Live-online	Course	28
	GRE Prep	Multiple live-online offerings; visit pcs.udel.edu/gre-test-prep for details.	Live-online	\$895	Live-online	Course	28
	GMAT Prep	Multiple live-online offerings; visit pcs.udel.edu/gre-test-prep for details.	Live-online	\$895	Live-online	Course	28
	LSAT Prep	Multiple live-online offerings; visit pcs.udel.edu//sat-test-prep for details.	Live-online	\$995	Live-online	Course	28
	MCAT Prep	Multiple live-online and self-paced offerings; visit pcs.udel.edu/mcat-test-prep for details.	Live-online	\$1,400/\$1,150	Live-online	Course	28
	SAT Prep	Multiple live-online offerings; visit pcs.udel.edu/sat-test-prep for details.	Live-online	\$475	Live-online	Course	27

CAREER DEVELOPMENT AND GLOBAL REACH

PROGRAM GRAD ACHIEVES CAREER GOAL Plus global outreach

By Nora Zelluk

After several years as a research associate in the field of agriculturerelated biotechnology, Anagha Bedarkar wanted to shift her career to a role in the healthcare field and pursued UD's Clinical Trials Management Certificate in 2017.

Bedarkar's career change was successful, and she is now working as a pharmaceutical manufacturing technician for

"I ENJOY WORKING IN THIS FIELD AS I KNOW I AM INVOLVED IN MAKING A PRODUCT TO HELP PATIENTS LIVE LONGER AND HEALTHIER LIVES."

—ANAGHA BEDARKAR

a testing device manufacturer involved in the production of products used for cancer screening and other medical conditions.

"I enjoy working in this field as I know I am involved in making a product to help patients live longer and healthier lives," said Bedarkar. "The Clinical Trials Management Certificate program gave me a broader overview and understanding of the steps involved in developing a new product, how clinical trials work, how the FDA plays its role, how to market a product and more. Having a strong understanding of all these things has helped me in my current role."



Anagha Bedarkar, Nitin Dhande, Lynn Fishlock and Michele Welch participate in a planning meeting for the Clinical Trials Management Certificate India-based cohort.

After completing UD's program, Bedarkar began communicating with leaders of the Vidarbha Youth Welfare Society (VYWS) in Amravati, India, which encompasses several education institutions. She knew her colleague Dr. Nitin Dhande, VYWS president, was continuously seeking partnerships with programs that could expand opportunities for its students in healthcare fields. "It's not possible for every student to come to the U.S. for higher education, so this partnership could offer a platform for India-based students to complete the University of Delaware certificate program," explained Bedarkar."

As a result of Bedarkar's and Dhande's collaboration, VYWS and UD's Division of Professional and Continuing Studies (UD PCS) arrived at an agreement to offer a dedicated online cohort of its long-running Clinical Trials Management Certificate program to participants enrolling through VYWS' Institute of Pharmaceutical Education and Research at Borgaon (Meghe) Wardha in India.

Last year, 22 India-based students completed UD's certificate program taught by Michele Welch, program director and lead faculty for the UD program, a clinical research professional with over 20 years' experience in global pharmaceutical drug development.

"This collaboration has been successful on many levels," said UD's Lynn Fishlock, program manager for UD's Division of Professional and Continuing Studies. "Since the program's inception, participants have enrolled in the Clinical Trials Management Certificate online program from all around the world, and we are very excited to be a part of this effort to extend the global reach of this relevant and valuable program." CONFERENCE

Continuing Dental Education Summer Symposium

Current topics for general dentists, dental hygienists, dental assistants and dental students

The Continuing Dental Education Summer Symposium is for general dentists, dental hygienists, dental assistants and dental students seeking continuing dental education and updates in the field. Recent topics include sleep dentistry, patient safety and dental safety, pharmacology, endodontics and new dental materials and techniques. The program is co-sponsored by Dodd Dental Laboratories and the University of Delaware's Division of Professional and Continuing Studies.

- SCHEDULE: Monday-Friday, July 19-23, 2021, 8 a.m.-noon
- **LOCATION:** Atlantic Sands Hotel and Conference Center, Rehoboth Beach, Del.
- **PRICE:** Weekly rate is \$750 (dentists) or \$375 (dental hygienists or other team members); daily rate is \$225 (dentists) or \$100 (dental hygienists or other team members); \$80 students (weekly or daily). Registration includes program materials, online certificates of attendance and continental breakfast. Participants assume responsibility for lodging and all other meals.

pcs.udel.edu/dental



CONFERENCE | LIVE-ONLINE

Eastern Shore Medical Symposium

Comprehensive coverage of current topics, including COVID-19, for physicians and other healthcare professionals

The Eastern Shore Medical Symposium provides an annual forum for primary care physicians, family practitioners, advanced practice nurses and other healthcare professionals to receive comprehensive updates on relevant medical topics in a relaxed, collegial atmosphere. Topics have included hypertension guidelines, heart failure, gastroenterology updates, opioid epidemic, cancer screening and prevention, immunization updates and diabetes management. The conference is jointly provided by Thomas Jefferson University and the University of Delaware with promotional assistance provided by the Medical Society of Delaware. Thomas Jefferson University is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE) and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare workers.

- **SCHEDULE:** The 2021 Eastern Shore Medical Symposium will be held as a three-day live-online conference in June 2021. For details visit pcs.udel.edu/esms.
- LOCATION: Live-online via videoconferencing.
- **PRICE:** For 2021 registration and price details, visit pcs.udel.edu/esms.
- pcs.udel.edu/esms

CONFERENCE

Medical Aspects of Sports Seminar

Successful prevention, evaluation and rehabilitation of sports injuries

This one-day sports medicine conference covers topics related to the evaluation and rehabilitation of sports-related injuries to the upper and lower extremities. The program is recommended for physical therapists, team and family physicians, athletic trainers, coaches, fitness club personnel, and students or school personnel involved in physical education, recreation and physical fitness programs. Presenters include faculty and athletic training experts from the University of Delaware as well as expert practitioners from the region.

Co-sponsored by the University of Delaware Intercollegiate Athletics Program and Department of Kinesiology and Applied Physiology.

SCHEDULE: February 2022, date to be announced, 7 a.m.-4:15 p.m.

- **LOCATION:** University of Delaware Audion, The Tower at STAR
- **PRICE:** \$215; student rate and two or more group discount available. Event registration includes all program materials, refreshments and lunch.

pcs.udel.edu/sports

CREDIT CERTIFICATE | HYBRID-ONLINE

Molecular Diagnostics Certificate

Hybrid-online plus campus-based certificate program designed for medical laboratory scientists working in the clinical laboratory or in the fields of forensics, biotechnology and pharmaceutics. See page 33.

NONCREDIT COURSE | ONLINE

RN Refresher Online Program

Update your nursing knowledge and skills to enhance your nursing practice and meet professional requirements

Have you been out of active nursing practice? Do you wish to update your nursing knowledge and return to a clinical setting? Does your state board of nursing require a refresher course for licensure reactivation? The University of Delaware's RN Refresher Online Program is designed to help you expand your nursing options. UD's RN Refresher Online Program consists of:

- An online didactic component providing the latest updates in evidence-based nursing practice and patient care management through a self-study format
- A clinical component comprised of a preceptored adult medical-surgical clinical experience in an acute care facility (optional for nurses with active licenses)
- Learner support available via web, email, phone and fax
- **SCHEDULE:** 15-week didactic component begins February 3, 2021. Clinical component immediately follows and must be completed by August 3, 2021. Application required. Please submit application early.
- PRICE: \$1,150 program fee (early registration discount through December 14). Textbooks not included; additional fees may apply to exam proctoring and clinical component. Scholarships and potential discounts available, including: Early registration, Military, UD student or alum.

pcs.udel.edu/rn-refresher

CREDIT DEGREE | ONLINE

RN to BSN Program

Online program for registered nurses wishing to earn a bachelor of science in nursing. See page 29.

HEALTHCARE PROFESSIONAL DEVELOPMENT PROGRAMS SEE INCREASED ENROLLMENT



By Nora Zelluk

In the current coronavirus (COVID-19) pandemic environment, three online healthcare professional development programs offered through UD's Division of Professional and Continuing Studies have been experiencing increased interest and enrollment.

With telehealth solutions taking center stage during the pandemic, UD's **Advanced Telehealth Coordinator Online Certificate** program experienced more than double the usual enrollment in 2020, with some registrants requesting early course access to accelerate their learning.

UD alumna Gemma Lowery, telehealth program manager for ChristianaCare, recently joined UD's certificate program as lead instructor and program director. Responsible for leading and expanding telemedicine initiatives for the state's largest health system as well as one the first graduates of UD's Advanced Telehealth Coordinator Certificate program, Lowery believes that although most healthcare providers were already familiar with or had begun to explore telehealth implementations, one result of the pandemic was to accelerate their adoption efforts, adding, "The COVID-19 crisis has shined a bright light on the value of telehealth as a very significant part of our medical treatment toolkit."

The **RN Refresher Online** program experienced a similar surge, with nearly 300 more program inquiries compared to last year at the same time, and significantly increased registrations. "We're hearing from RNs who tell us they're responding to events in their home states and communities, and reporting that their area hospitals are looking for nurses who have previous clinical experience and want to come back to clinical practice," said program director Kate Salvato. "Several of our participants specifically commented that the pandemic situation rekindled their desire to return to active nursing practice."

For the long-running **Clinical Trials Management Online Certificate** program, normally offered twice a year, a third cohort was added this year for the first time. Registrations in 2020 jumped to more than triple last year's enrollment.

"Clinical research is a field for individuals who have a passion for leaving their footprint in research as well as seeing the impact their efforts make to humankind," said Michele Welch, program director and lead faculty for the program. "And as we discussed in one of our recent class threads," added Welch, "course participants are not only learning the theory of clinical development in this program, but we are also living it, with real-time case studies provided in our daily current events."

Law programs

Free Live-Online Information Session

Join us for the following live-online information session to learn more about spring 2021 professional development programs, speak with instructors and ask questions about the programs you're interested in.

Thursday, January 21 7–8 p.m.

Paralegal Institute (Paralegal Certificate, Advanced Paralegal Seminar Series)

Meeting information sent upon registration

pcs.udel.edu/info-session

Students benefit from paralegal association memberships

UD's Division of Professional and Continuing Studies is a sponsor of the Delaware Paralegal Association (DPA) and the Delaware County Paralegal Association (DCPA). We encourage participants in UD's Paralegal Certificate program to join these associations at the student membership level. For more information, visit deparalegals.org (DPA) and delcoparalegal.org (DCPA).

Legal association discounts

Employees of the Delaware State Bar Association (DSBA) and its member firms and members of the Delaware Paralegal Association (DPA) and the Delaware County Paralegal Association (DCPA) are eligible to receive a 15% discount when registering for UD PCS Paralegal Institute classes. Only one discount may be applied per enrollment.

pcs.udel.edu/paralegal-institute

NONCREDIT CERTIFICATE | IN-CLASS

Paralegal Certificate

Create a new career path or advance in your current position as a paralegal or legal assistant

Paralegals fill a vital role in the legal community, and for more than 40 years the University of Delaware's Paralegal Certificate program has been preparing legal assistants and paralegals in the region. Taught by a faculty of experienced attorneys, the program covers the American system of law, court systems and procedures, legal research and writing, and the major branches of law. Professional opportunities are many and varied:

- Private law firms will continue to be the largest employers of paralegals.
- Growth is expected in corporate legal departments, insurance companies, real estate and title insurance firms, and banks.
- Opportunities are projected to expand in the public sector.

WHO SHOULD PARTICIPATE?

- Anyone wishing to change careers
- Anyone wishing to enter the field of law and legal services
- Anyone with legal experience wishing to earn a valuable credential
- Anyone considering law school
- SCHEDULE: August 30, 2021 to July 20, 2022, Mondays/Wednesdays, 6–9 p.m.
- LOCATION: Arsht Hall, 2700 Pennsylvania Ave., Wilmington, Del.
- PRICE: \$3,800, textbooks additional.
 Payment plan, scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group), Delaware State Bar Association, Delaware Paralegal Association and Delaware County Paralegal Association.

23.4 Continuing Education Units

pcs.udel.edu/paralegal-institute

NONCREDIT CERTIFICATE | IN-CLASS

Advanced Paralegal Seminar Series

Keep up with trending legal topics

Enhance your career through advanced education in various areas of the law. By studying targeted topics, you can gain the specialized knowledge that will increase your scope of practice and competencies and make you more effective in working with attorneys who focus on particular legal fields and specialties. These shortterm courses are designed to accommodate busy professionals.

WHO SHOULD PARTICIPATE?

- Anyone working in a law firm
- Anyone working toward a legal profession
- Anyone with legal experience wishing to enhance their knowledge in the legal field

Returning late 2021

- E-filing
- E-discovery

pcs.udel.edu/paralegal-institute



Pre-college programs

UD CREDIT COURSES FOR HIGH SCHOOL STUDENTS

Individual enrollment in UD credit courses

High school students interested in taking credit courses as a Continuing Education Non-Degree (CEND) student are required to schedule an appointment to meet with an ACCESS Center academic advisor (see page 3). ACCESS advisors are available to answer questions, offer guidance and assistance with course selection and registration, and provide forms that need to be completed.

Advisors are available to support students throughout the process.

INTERESTED IN GETTING STARTED?

Contact the ACCESS Center to make an appointment with an advisor prior to enrolling.

access-advise@udel.edu or 302-831-8843 pcs.udel.edu/pre-college

UD Dual Enrollment: Earn college credits while still in high school

Academically qualified high school juniors and seniors can concurrently earn University of Delaware and high school credits for designated courses through established partnerships with participating high schools.

Students can:

- Earn college and high school credits at the same time.
- Gain experience taking college-level courses.
- Take courses not available at their schools.
- Enhance their college applications.

Online courses are one of the options for students in UD's dual enrollment partnership program. Students may enroll in one or more of the designated online courses offered and taught by UD faculty. Although course offerings may change, typical offerings include:

ANTH 101: Introduction to Social and Cultural Anthropology

Major ideas and areas of study in social and cultural anthropology. (3 credits)

BUAD 100: Introduction to Business

Survey of basic business concepts designed for non-business majors. (3 credits)

HDFS 202: Diversity and Families

Examination of diverse families in the United States with a focus on issues of race, ethnicity, social class and gender. (3 credits)

NTDT 200: Nutrition Concepts

Functions and sources of nutrients, dietary adequacy, energy balance and metabolism with emphasis on health promotion. (3 credits)

HOW TO GET STARTED

Contact your school's guidance office to find out if your school participates in UD Dual Enrollment.

pcs.udel.edu/high-school-dual-enrollment

Early College Credit Program

High school students throughout Delaware are able to earn up to a full semester of college credits at no charge thanks to a new University of Delaware initiative. The UD Early College Credit Program enables qualified junior and senior high school students to take up to five University courses, simultaneously earning both high school and college credits.

No other program in the nation offers high school students such an opportunity that is both statewide and at no cost. All 74 public, charter and private high schools in Delaware are eligible to participate in this program.

pcs.udel.edu/early-college-creditprogram

COLLEGE TEST PREP: EARN HIGHER ACT AND SAT SCORES

Standardized tests are crucial components of the college application process. The University of Delaware partners with Educational Testing Consultants (ETC), a leader in higher education test preparation, to offer intensive programs that provide students with the tools they need to excel. A limited number of need-based scholarships are available for students enrolling in test prep programs. Courses are offered live-online. See page 27 for details.

pcs.udel.edu/early-college-credit-program

ACT Live-Online Test Prep

This test prep course is an intensive program that provides students with the tools they need to excel on the ACT exam. See page 28.

pcs.udel.edu/sat-test-prep

SAT Test Prep

This test prep course is an intensive program that provides students with the tools they need to excel on the SAT exam. See page 28.

pcs.udel.edu/sat-test-prep

NONCREDIT COURSES | LIVE-ONLINE

NEW! Summer Bridge Program in Mathematics

For students entering grades 1-6

Known as the "summer setback" or "summer slide," the two-plus month loss of knowledge that students experience when they are not utilizing their newly acquired skills can have a significant impact on their performance in the upcoming school year. Presented as a "visit to the teacher's desk," the Summer Bridge Program in Mathematics helps minimize students' loss of proficiency by providing them with an instructor-led environment for reviewing and practicing skills learned over the previous year as well as receiving guided instruction on topics to be covered in the grade they are entering.

Taught by dedicated instructors who have experience working with elementary school students, the classes are interactive-students will be able to ask and answer questions in real time. Each course consists of 12 50-minute sessions presented by a live instructor. Sessions are divided into either a six-week schedule, meetina two days per week, or a three-week schedule, meeting four days per week. In addition to the scheduled classes, students will have access to prerecorded versions of each session, which they can use to preview topics, view sessions they are unable to attend and review content from a different perspective.

Each class is appropriate for students who recently completed that grade and want to minimize summer losses or for those who are preparing for that grade and want an introduction to the topics they will be presented with in the coming year.

Summer Bridge Program in Mathematics–Grade 1

The first grade program covers basic arithmetic, including number families, place value, and addition and subtraction through two digits, including carrying and borrowing, counting, and adding and subtracting with coins; time, including reading digital and analog clocks to whole and half hours; measurement basics; introduction to graphs; basic geometry, including essential characteristics of shapes; and fractions up to quarters.

Summer Bridge Program in Mathematics–Grade 2

The second grade program covers basic arithmetic through addition and subtraction of three-digit numbers, including place value and adding multiples of the same number; counting, adding and subtracting with coins; time, including reading digital and analog clocks to quarter hours; measurement, including both English and metric system units; graphs and data representation; geometry, including essential characteristics of shapes and area measurement using square units; and fractions up to ninths.

Summer Bridge Program in Mathematics–Grade 3

The third grade program covers basic arithmetic through addition and subtraction up to four digits and multiplication and division to three digits; foundations of algebra, including sequences and basic properties of operations; time, including reading digital and analog clocks to minutes and solving time problems; measurement, including both English and metric system units of length, area, volume and weight; graphs and data representation; geometry, including 2D and 3D shapes and area and perimeter; and fractions, including labeling a number line.

Summer Bridge Program in Mathematics–Grade 4

The fourth grade program covers arithmetic, including numeration to 1,000,000, adding and subtracting to five digits, and multiplication and division to five total digits; foundations of algebra, including sequences and basic properties of operations; measurement, including both English and metric system units of length, area, volume and weight, and unit conversions; graphs and data representation; geometry, including parallel and perpendicular lines, angle measurement, types of triangles and symmetry; and fractions, including addition and subtraction of mixed numbers, multiplication and equivalent fractions.

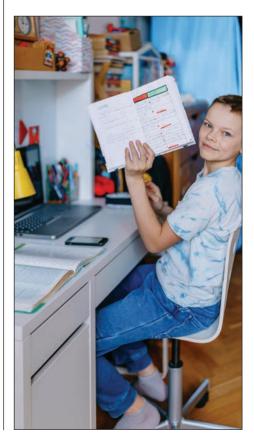
Summer Bridge Program in Mathematics–Grade 5

The fifth grade program covers arithmetic, including place value, decimals, adding and subtracting fractions and mixed numbers, and multiplication and division to five total digits, including decimals and fractions; foundations of algebra, including parentheses, brackets and order of operations; word problems, including translation keys; measurement, including both English and metric system units of length, area, volume and weight, and unit conversions; graphs and data representation; geometry, including angle measurement, area, volume and circle facts; and graphing points and horizontal and vertical lines on a coordinate grid.

WHO SHOULD PARTICIPATE?

- Any student entering first through sixth grade who is seeking an engaging environment to explore fun, relevant math topics.
- SCHEDULE: Coming soon
- LOCATION: Live-online
- **PRICE:** \$299 per course, various discounts available

pcs.udel.edu/summer-bridge



Safety programs

Free Live-Online Information Session

Join us for the following live-online information session to learn more about spring 2021 professional development programs, speak with instructors and ask questions about the programs you're interested in.

Thursday, January 21 7–8 p.m.

Occupational Safety (COSS, COSM, SAF Frontline Training)

Meeting information sent upon registration pcs.udel.edu/info-session



PROFESSIONAL SAFETY TRAINING INSTITUTE

The University of Delaware's Division of Professional and Continuing Studies partners with the Delaware Valley Safety Council to offer training for entry-level to experienced safety professionals as well as organizational leaders focused on promoting workplace safety culture and performance excellence. All programs are taught by Authorized OSHA Outreach Trainers.

NONCREDIT COURSE | LIVE-ONLINE

Certified Occupational Safety Specialist (COSS)

Become a trained safety practitioner

Developed by expert safety practitioners focused on the core competencies of occupational safety and health, the Certified Occupational Safety Specialist (COSS) designation is recognized nationwide for its rigorous standards and outstanding curriculum. COSS graduates are able to teach their employees and colleagues how to work safely and eliminate the risk of fatalities and near misses—and avoid safety violations and OSHA citations.



Participants who successfully complete the program earn the nationally recognized Certified Occupational Safety

Specialist (COSS) designation, which is endorsed by the American Association of Safety Councils and the American Council for Construction Education.

WHO SHOULD PARTICIPATE?

This course is designed for entry-level safety professionals as well as experienced safety practitioners wishing to stay current in the field. Safety training is applicable to a wide range of industries, including construction, manufacturing, transportation, energy and utilities, public safety and security, healthcare, food, government and human resources.

- **PREREQUISITE:** High school diploma or equivalent.
- **SCHEDULE:** Monday–Friday, 9 a.m.–3 p.m., several options available–refer to the website for details

LOCATION: Live-online

PRICE: \$2,099. UD alumni, military and GBCA discount available.*

pcs.udel.edu/coss

NONCREDIT COURSE | LIVE-ONLINE

Certificate for Occupational Safety Managers (COSM)

Advanced safety training for occupational safety professionals

This advanced, executive level safety program focuses on safety processes and procedures and building the safety culture to lead your company toward excellence. Safety professionals and managers who have seen the difference training can make can take the next professional step in their careers with the COSM designation. After completing 40 hours of training and submitting all assignments, participants will receive the COSM credential.

WHO SHOULD PARTICIPATE?

This program benefits all organizational safety leaders involved in processes and decision-making as well as other managers and professionals charged with workplace health and safety for their organizations.

PREREQUISITE: Minimum two years of safety, health or environmental work experience.

Topics covered:

- Essentials of safety management
- Safety competencies and leadership
 - Management roles and responsibilities
 - Strategic planning and evaluating
 - Managing risk (hazards and analysis), safety finances and workers' compensation

- Communicating the safety message
- Presenting to high-level executives
- Injury management, incentives and discipline
- Claims and investigation in post-accident management
- **SCHEDULE:** Monday–Tuesday for three weeks, 9 a.m.–3 p.m., several options available–refer to the website for details

LOCATION: Live-online

PRICE: \$2,289. UD alumni, military and GBCA discount available.*

pcs.udel.edu/cosm

*Contact the Delaware Valley Safety Council at 856-558-8797 or detraining@dvsconline.org to apply any discount. Only one discount may be applied per enrollment. General Building Contractors Association, Inc. (GBCA) members receive a discount when enrolling in COSS or COSM.



NONCREDIT COURSE | LIVE-ONLINE

SAF Frontline Safety Training

Become a safety leader in your workplace

Achieving an injury-free workplace takes more than a catchy phrase or one individual championing the cause. Frontline supervisors play a pivotal role in shaping the safety mindset in the workforce. SAF Frontline Safety Training is a three-day course designed to enhance a supervisor's understanding of the bigger picture in creating a safer work environment. By learning how to promote safety on a job site, graduates have the knowledge to help reduce fatalities, near misses and OSHA citations.

Topics covered:

- How exposures to hazards can lead to accidents
- Performance of a worksite analysis
- Recognizing hazards
- Determining potential effects of hazards
- Determining how OSHA code applies to identified hazards
- Controlling identified hazards
- Communicating hazard-related information
- Initiating an accident investigation
- Understanding some of the psychology that drives employees' "unsafe" behaviors

SCHEDULE: Wednesday–Friday, February 24–26 or July 28–30, 2021, 9 a.m.–3 p.m., plus two-hour Zoom session to complete final graded activities.

LOCATION: Live-online

PRICE: \$649. UD alumni and military discount available.*

pcs.udel.edu/saf-frontline-safety-training/

INDUSTRY UPDATE: SAFETY VIOLATIONS

Annual OSHA report highlights perennial safety issues

Every year, the U.S. Occupational Safety and Health Administration (OSHA) releases a list of top safety violations. The report consistently shows thousands of citations for infractions that could potentially affect job safety. Last year, the top 10 most frequently cited violations were:

- 1. Fall Protection: General (6,010 violations)
- 2. Hazard Communication (3,671)
- 3. Scaffolding (2,813)
- 4. Lockout/Tagout (2,606)
- 5. Respiratory Protection (2,450)
- 6. Ladders (2,345)
- 7. Powered Industrial Trucks (2,093)
- 8. Fall Protection: Training (1,773)
- 9. Machine Guarding (1,743)
- 10. Eye and Face Protection (1,411)

Understanding OSHA requirements is a primary focus of UD's occupational safety training courses, which emphasize recognizing hazards and effectively managing workplace safety programs.

Offered in partnership with the Delaware Valley Safety Council (DVSC), all courses are taught by Authorized OSHA Outreach Trainers. For more information, visit **pcs.udel.edu/** occupational-safety.



Test prep programs

TEST PREP FREE STRATEGY SESSIONS

ACT/SAT Strategy Workshop (LIVE-ONLINE) 9–10 p.m.

Tuesday, January 26

Wednesday, April 14

GRE Strategy Workshop (LIVE-ONLINE) 9–10 p.m.

Thursday, January 14 Wednesday, February 17 Thursday, March 25 Wednesday, April 14

GMAT Strategy Workshop (LIVE-ONLINE) 9–10 p.m.

Tuesday, January 12 Wednesday, March 3

LSAT Strategy Workshop (LIVE-ONLINE) 9–10 p.m.

Thursday, January 7 Tuesday, February 16 Wednesday, April 14

FINANCIAL AID AVAILABLE

Need-based financial aid is available for students enrolling in the ACT, SAT, GMAT, GRE or LSAT test prep programs. Applications are accepted on a rolling basis, with preference given to submissions received at least three weeks prior to the applicable course start date. **pcs.udel.edu/test-prep**

NONCREDIT COURSE | LIVE-ONLINE

College Test Preparation Courses

Live-online test preparation and review tools to help you perform at your peak

Standardized tests are a crucial component of the college and graduate school application process, and success on these exams can be a big part of achieving your goals. These test prep courses are intensive programs that provide students with the tools they need to excel on their exams. Students are provided with an in-depth review of the exam materials, insight into strategies for succeeding on each exam, and a comprehensive study plan. An official study auide, a customized workbook and online resources are provided with each course. These programs are offered in partnership with Educational Testing Consultants (ETC), a leader in higher education test preparation.

WHO SHOULD PARTICIPATE?

- Rising high school juniors taking the SAT or ACT for college admissions
- Undergraduates preparing to take the GRE, GMAT or LSAT for admission to graduate school or law school
- Future teachers taking the Praxis for certification or admission to colleges/schools of education
- Anyone wishing to continue their education at the college/university or graduate level

PRICE: See website for current pricing. Scholarships and potential discounts available, including Military, UD dependents, Del. residents.

LOCATION: Courses offered live-online. See website for details.

pcs.udel.edu/test-prep

ACT

(Multiple live-online offerings) pcs.udel.edu/sat-test-prep

GRE

(Multiple live-online offerings) pcs.udel.edu/gre-test-prep

GMAT

(Multiple live-online offerings) pcs.udel.edu/gre-test-prep

LSAT

(Multiple live-online offerings) pcs.udel.edu/lsat-test-prep

SAT

(Multiple live-online offerings) pcs.udel.edu/sat-test-prep

Various discounts or scholarships may be available for all test prep programs: Military, UD dependents, Del. residents.

OTHER EXAM PREP OFFERINGS

Praxis

See page 14 for more information.

NEW! DAT and MCAT

Beginning in January, UD PCS is partnering with Kaplan to offer DAT and MCAT prep at reduced prices to the UD community.

WHO SHOULD PARTICIPATE?

- Future dentists taking the DAT for admission to dental school
- Future doctors taking the MCAT for admission to medical school

DAT

(Multiple live-online and self-paced offerings)

pcs.udel.edu/dat-test-prep

MCAT

(Multiple live-online and self-paced offerings)

pcs.udel.edu/mcat-test-prep

UD Online programs

Study with flexibility

At the University of Delaware, we offer a learning environment designed to help you expand your skills and further your career. We do this through discovery-based learning, applied research and dynamic skill



building. This proven academic approach extends to all of our online degree programs and non-degree courses. When you choose to study with UD, you gain access to our expert faculty and our leading-edge curriculum, all with the flexibility that comes with online learning.

Online programs from the University of Delaware are ideal solutions for students and professionals who are seeking to advance critical skills with a leading research university while accommodating their busy schedules. Explore all of these options at **online.udel.edu**.

University of Delaware—a top-ranked education

Take advantage of e-learning opportunities at a top-ranked, research-focused university with a wide array of programs, departments, schools and centers.

- U.S. News and World Report names UD No. 40 nationally among top public universities.
- · Kiplinger's, Forbes and MONEY rank UD among "Best Value" schools.
- The Center for World University Rankings places UD in the top 1.2% of universities in the world.

Learn more: www.udel.edu/about/facts-figures



CREDIT UNDERGRADUATE DEGREES AND CERTIFICATES

Associate in Arts Online

The Associate in Arts Online is a liberal arts degree representing completion of approximately half of a UD bachelor of arts degree. Your previous college credit may be transferable into the program, and you may begin taking courses prior to formal admission to the degree. Consult with an ACCESS Center advisor to choose courses and customize your program. A UD degree is closer than you think!

CONTACT: access-advise@udel.edu 302-831-8843

pcs.udel.edu/associate-arts-online/

Bachelor of Science in Nursing (RN-to-BSN)

The University of Delaware School of Nursing's RN-to-BSN program provides licensed registered nurses the opportunity to earn their BSN degree through online study. Building on basic nursing knowledge to enhance nursing practice in an increasingly complex society, the curriculum further develops students' scholarly writing skills, leadership skills, research knowledge and use of evidence-based practice to provide a growth experience for the actively practicing registered nurse. Providing year-round learning opportunities for degree completion, courses are offered in fall, winter, spring and summer.

CONTACT: access-advise@udel.edu 302-831-8843 sites.udel.edu/nursing/nursing-education

Questions?

Please visit online.udel.edu, write to continuing-ed@udel.edu or call 302-831-7600.

Certificate of Business Essentials

Through a combination of online and campus courses, this certificate offers students and working professionals in non-business fields the opportunity to earn a business-related certificate. The program is comprised of four targeted courses from UD's Alfred Lerner College of Business and Economics:

- Economic Issues and Policies
- Survey of Accounting
- Introduction to Business
- Fundamentals of Finance

CONTACT: access-advise@udel.edu 302-831-8843 • pcs.udel.edu/essentials

CREDIT GRADUATE DEGREES AND CERTIFICATES

BUSINESS

Master of Accounting Practice

Within this AACSB accounting-accredited program, you'll study with renowned faculty to gain a solid understanding of accounting, the assurance function, tax regulations, business law and the business environment and graduate ready to sit for the CPA exam.

CONTACT: 844-237-1338 business.online.udel.edu/sp-map

Master of Science in Applied Statistics

This program is designed for working professionals from a range of occupational and educational backgrounds. Students receive training in applied and theoretical statistics and graduate ready to excel in data careers.

CONTACT: 844-247-6251 onlinestats@udel.edu onlinestats.canr.udel.edu

Master of Business Administration (MBA)

The Online MBA program allows participants to engage in thoughtful learning with outstanding faculty and students, maximizing real-world knowledge to equip them with the skills and knowledge needed to excel in today's global market. Graduates can add a powerful, AACSB-accredited MBA to their resume in as few as 16 months, with concentrations in business analytics, finance, healthcare management, international business and strategic leadership. Five start dates per year.

CONTACT: mbaprogram@udel.edu 844-237-1338 • mbaonline.udel.edu

Graduate Certificate in Socially Responsible and Sustainable Apparel Business

Addresses labor and environmental problems in global supply chains for the apparel, textile and footwear industries. Coursework is grounded on principles of the United Nations (UN) Global Compact and provides the foundation needed to manage international production, design, product development, buying, promotion and sourcing in ways that are socially responsible and sustainable.

CONTACT: 302-831-8713 hcao@udel.edu fashion.udel.edu/graduate/ graduate-certificate

Master of Science in International Business

This degree prepares professionals for leadership in international business, with emphasis on strategic, financial and managerial roles. Participants customize their program with coursework drawn from accounting, economics, finance, marketing, entrepreneurship and analytics.

CONTACT: 844-237-1338 business.online.udel.edu/msib

Master of Arts in Strategic Communication (M.A.)

By evaluating past media campaigns and their results, conducting competitive research, and designing new campaigns based on insights from student analysis, this degree focuses on the tactics necessary to craft persuasive messaging. Graduates are prepared to advance in their current career or take on new roles in strategic communication, public relations, digital media or social media management. Students can pursue concentrations in either public relations or digital and social media as well as customize electives to design a program that best matches their career goals.

CONTACT: 844-237-1338 stratcomm.online.udel.edu

EDUCATION

Master of Arts in Economics and Entrepreneurship for Educators (M.A.E.E.E.)

This hybrid online plus on-campus program focuses on preparing educators to teach economics, entrepreneurship and personal finance in elementary and secondary schools. The M.A.E.E.E. equips educators with a solid foundation in economic theory and a set of teaching strategies to inspire students to become effective participants in the economy, successful entrepreneurs, responsible consumers and wise investors.

CONTACT: asarta@udel.edu 302-831-2559 lerner.udel.edu/programs/mastersprograms/economics-and-entrepreneurship-for-educators-ma

Master of Education in Educational Technology (M.Ed.)

Based on the assumption that new media and the internet can have a positive effect on teaching and learning, this degree provides both a theoretical and a practical arounding in educational technology methods and techniques, emphasizing theories of teaching and learning that support these methods. To demonstrate mastery of the program's goals, all candidates complete the same series of seven program assessments. Depending on the student's career path, these assessments are evaluated by rubrics developed according to standards of the International Society for Technology in Education (ISTE) or the Association for Educational Communications and Technology (AECT).

CONTACT: 302-831-2396 education.udel.edu/masters/edtech

Master of Education in Exceptional Children and Youth (M.Ed.)

With perennial shortages in the field of special education, this program is aimed at developing teachers and education professionals committed to serving children and youth with disabilities. Concentrations are available in K-12 Special Education and Autism/Severe Disabilities. This program is appropriate for teachers with a certificate in either general or special education who wish to develop advanced knowledge and skills as well as other education professionals wishing to pursue an advanced degree in the disability field. A five-course program for Delaware teachers meets reguirements for Delaware certification as a Teacher of Exceptional Children Grades K-12 or Teacher of Students with Autism or Severe Intellectual Disabilities.

CONTACT: kritchey@udel.edu education.udel.edu/masters/exc-online

Master of Education in Literacy (M.Ed.)

This program is for K-12 teachers wishing to prepare for certification as reading or literacy specialists. Current teachers and educators will study the theoretical and evidenced foundations of reading and writing development, learn to plan culturally and linguistically relevant literacy instruction for all students, and support students and teachers in the use of digital literacy tools. Career opportunities include reading and literacy specialist positions in school districts as well as English language arts (ELA) positions in K-12 schools.

CONTACT: dcoker@udel.edu education.udel.edu/masters/literacy

Master of Education in Teacher Leadership (M.Ed.)

Today's ever-changing educational landscape requires teachers who are equipped to be leaders in the classroom, able to foster collaboration within the school and community, and to understand and implement policies that impact students in K-12 classrooms, private schools, preschools, higher education and home schooling. This program provides teachers with the insights, knowledge and skills needed to better manage their classrooms, improve student outcomes and enhance their own professional growth as well as guide their peers toward more effective teaching strategies.

CONTACT: karchmer@udel.edu education.udel.edu/teacherleadership



ENGINEERING

Online Graduate Certificate in Applied Bioinformatics

Bioinformatics is an emerging field where biological and computational disciplines converge, leading to job opportunities in rapidly arowing fields like biomedicine. pharmaceuticals, healthcare, aariculture and data analytics. This four-course program is aimed at working professionals in the life sciences or data sciences who wish to gain knowledge and practical experience in bioinformatics. Focused on realworld applications, students will learn in an interactive, experiential and multidisciplinary team environment from nationally and internationally renowned researchers and practitioners in the field. No previous programming or database experience is required, but a familiarity with molecular biology concepts is recommended.

CONTACT: bioinformatics@udel.edu bioinformatics.udel.edu/ABNF-CERT

Online Graduate Certificate in Biomedical Informatics and Data Science

Bioinformatics is an emerging field where biological and computational disciplines converge, leading to job opportunities in rapidly expanding fields of study with applications ranging from genomics to pharmaceutical, health informatics and biomedical research, having the potential to impact all areas of scientific research. This four-course program is aimed at working professionals in the life sciences or data sciences, or as a complement to other UD degree programs, who wish to agin knowledge and practical experience in fields where biomedicine, precision medicine, health informatics and data science intersect. Focused on real-world applications, students will learn in an interactive, experiential and multidisciplinary team environment from nationally and internationally renowned researchers and practitioners in the field. No previous programming or database experience is required, but a familiarity with molecular biology and statistics is recommended.

CONTACT: bioinformatics@udel.edu bioinformatics.udel.edu/BIDS-CERT

Graduate Certificate in Composites Manufacturing and Engineering

Design rules for composite materials are fundamentally different than for traditional materials, with the engineer tailoring the material structure at the micro- and nano-scales to achieve desired mechanical and physical properties. This program is intended to provide the practicing engineer a strong foundation in the processingstructure-property relations in advanced fiber composites. UD's Center for Composite Materials and Department of Mechanical Engineering are internationally recognized as leaders in composites research and education.

CONTACT: me-gradinfo@udel.edu me.udel.edu/academics/graduate/ graduate-certificate-in-compositesmanufacturing-engineering

Graduate Certificate in Cybersecurity

Why study cybersecurity? Whether working in IT, engineering, computer science or even business, almost everything you are likely to work on in your career will need to incorporate security considerations-whether a computer system, a network, an information system or some other product or service. As such, an understanding of security should be part of any technology or business education going forward. In this three-course introduction to the field of cybersecurity, which you can later apply to a master's degree, you will learn key principles and practices as seen in the real-world. Understand CIA (confidentiality, integrity and availability), the NIST Cybersecurity Framework, practical cryptography, hand-on practice evaluating and securing real computer system (Linux, Windows), and building and configuring defensive systems such as firewalls, intrusion detection systems, VPNs and SIEMs on your own laptop using virtual machine technology, and be able to sift through the millions of daily warnings, of which only a few are a real threat.

CONTACT: 302-831-2406 ece.udel.edu/graduate/cybersecuritycertificate

Graduate Certificate in Railroad Engineering

The program prepares participants to meet railroad industry employers' expectations regarding knowledge of railroad and rail transit and is designed for engineering professionals working in the area of railroad engineering or for those desiring to expand their knowledge of railroad engineering and related engineering disciplines with the goal of advancement in the railroad industry.

CONTACT: cee-info@udel.edu railroadengineering.engr.udel.edu/courses/

Master of Science in Cybersecurity

Protect your organization from malware and data breaches with career-enhancina education from a National Security Agency (NSA) and Department of Homeland Security (DHS) designated National Center of Academic Excellence in Cyber Defense Education. After seeking input from the U.S. Department of Defense, the U.S. government, the financial services industry and other Fortune 500 corporations, the University of Delaware designed and created a unique and modern program for cybersecurity education. This thirdaeneration cybersecurity education program stresses student hands-on experiences to create lasting reinforcement of the expanding body of knowledge of computer and network security now known as cybersecurity. Learn key cybersecurity principles, how to evaluate and protect systems and write security software, diaital forensics, and applied cryptography from faculty and industry experts. This 10-course program combines security industry best practices, underlying theory such as cryptography, and critical hands-on-keyboard experience to address today's cybersecurity issues as an in-demand specialist.

CONTACT: 302-831-2406 ece-info@udel.edu ece.udel.edu/online/graduate/mastersin-cybersecurity-online.html

Master of Science in Electrical and Computer Engineering

Build your expertise in math, engineering and data science with a program focused on skill building across signal processing, data analytics, communication and cybersecurity to prepare you to lead solution development in data and communications. In addition to the master skill set of electrical and computer engineering, the program strongly focuses on the critical insights you will need to secure, protect and implement the systems you create. Developed by a faculty with diverse corporate and research backgrounds, this flexible program is for those with prior degrees in electrical, computer or mechanical engineering, or computer science or mathematics, and can be completed in as few as two years.

CONTACT: 302-831-2406 ece-info@udel.edu ece.udel.edu/online/graduate/mseceonline.html

Master of Science in Mechanical Engineering (MSME)

This online program is comprised of 30 credits covering not only the foundations of solid mechanics, fluid mechanics, heat transfer and dynamics but also electives in biomechanics, clean energy and environment, composite materials and manufacturing, energy-efficient mobility systems and smart cities, robotics and controls, and more. Program faculty are the same worldclass, awarded faculty who teach in the full-time, campus-based program.

CONTACT: me-gradinfo@udel.edu me.udel.edu/academics/graduate/ msme-online

Online Graduate Certificate in Minerals, Materials and Society

The 15-credit program is designed to equip students with the skills necessary to obtain jobs in the growing field of sustainable supply chain management and environmental and social responsibility, and to become world leaders and game changers in this arena. Among the first programs of its kind in the United States that takes an interdisciplinary approach to linking science and policy issues associated with mineral and material sourcing, it builds on UD's strengths in earth science as well as in material science, energy policy, fashion and apparel studies and a range of social science disciplines.

CONTACT: saleem@udel.edu sites.udel.edu/ceoe-mms

NURSING/HEALTHCARE

Dietetic Internship

This post-baccalaureate certificate program provides graduates of a didactic program in dietetics (DPD) with the knowledge and skills necessary to become registered dietitians with the creative problem-solving skills necessary in the field of dietetics. Upon successful completion of the program, students receive a verification of completion certificate and are eligible to take the Registration Examination for Dietitians.

CONTACT: 302-831-4989 aleef@udel.edu • udel.edu/bhan/dietetic

Doctor of Nursing Practice (DNP)

UD's Doctor of Nursing Practice program prepares graduates to perform at the highest level of advanced nursing practice. The foundation for practice expertise with a population health focus enables the graduate to plan and lead evidencebased interventions, quality improvement strategies and health policy changes that address patient safety, promote patientcentered care and reduce health disparities among diverse groups. Three concentrations are available in a hybrid-online and on-campus format: adult-gerontology nurse practitioner, family nurse practitioner and psychiatric mental health nurse practitioner.

CONTACT: ud-gradnursing@udel.edu sites.udel.edu/nursing/graduate

Molecular Diagnostics Certificate

This post-baccalaureate certificate program has a hybrid-online plus on-campus format, providing medical laboratory scientists working in forensics, biotechnology or pharmaceutics with the opportunity to update skills and knowledge to help meet the demands of modern molecular biology theory and application. The program also provides individuals seeking Molecular Biology, American Society for Clinical Pathology (MB-ASCP) certification with a solid preparation for national credentialing examinations. The three-course program is comprised of two 14-week online lectures and one weeklong campus-based laboratory practicum.

CONTACT: mms-dept@udel.edu sites.udel.edu/mms

PUBLIC ADMINISTRATION

Master of Public Administration (MPA)

This program is designed to help public service professionals develop their knowledge of current societal issues and strengthen their administrative acumen using a curriculum based on applied research and contemporary case studies. Founded on theory, research and application-based solutions and taught by an interdisciplinary faculty, this flexible program challenges participants to apply best practices while mastering the strategies necessary to shape policy and lead effective management in government, nonprofit and private sectors.

CONTACT: 302-831-1687 bidenschool@udel.edu bidenschool.udel.edu/masters-programs/ academic-programs/mpa-master-ofpublic-administration

NONCREDIT PROFESSIONAL DEVELOPMENT AND CERTIFICATE PROGRAMS

BUSINESS

Socially Responsible and Sustainable Business–Online Short Courses

- Risks of Human Trafficking
- Human Rights of Workers in Supply Chains
- Textile and Apparel Product Safety
- Impact of Corporate Purchasing Practices on Workers in Supply Chains

Over 4,800 supply chain professionals from 39 countries have successfully completed one of UD's Socially Responsible and Sustainable Business short courses, and 124 companies have used a course to train their employees in industries including apparel, footwear, pharmaceutical, manufacturing, retail, biotech, food processing, jewelry, packaging, telecommunications and electronics.

CONTACT: continuing-ed@udel.edu pcs.udel.edu/srsb

NURSING/HEALTHCARE

Advanced Telehealth Coordinator

Provides the foundations of telehealth for participants interested in utilizing telehealth for the delivery of healthcare. See page 17.

Clinical Trials Management

Key competencies necessary for understanding and conducting clinical trials and new product development. See page 17.

RN Refresher

Online didactic course for nurses seeking to reinstate their license; clinical component coordinated locally. See page 22.

SOCIAL MEDIA MARKETING STUDENT HELPS CAFFÉ GELATO AVOID LAYOFFS

By Adam S. Kamras

Lessons implemented during COVID-19 crisis

When Caffé Gelato owner Ryan German enrolled employee Kiran Wiker in the Advanced Social Media Marketing for Business Certificate program offered by the University of Delaware's Division of Professional and Continuing Studies (UD PCS), he was hoping his investment would enable Wiker to utilize the training to serve as an online voice for his restaurant on Newark's Main Street and bring more customers in the door.

As the 15-week, online class commenced in the second week of February, neither German nor Wiker could have envisioned how the escalating COVID-19 crisis would propel Wiker's voice to the forefront of Caffé Gelato's business. Rather than using her newly acquired skills to help the business grow, Wiker was

charged with doing all she could to enable her coworkers to continue to be paid, without having any patrons come through the door.

According to German, Delaware was the third hardest-hit state for restaurant layoffs during the pandemic—as of late June—with 60% of all staff members being let go at some point. He felt a duty not to lay off any of his staff and opted to stay open during the quarantine period. This required Caffé Gelato to rapidly pivot from being a fine dining restaurant and catering business to one that was now operating solely as a full-service takeout establishment. To get the word out, Wiker turned to social media and was guided by her instructor, Nancy Dibert, the founder and CEO of EPIC Marketing Consultants.

"Every lesson, lecture and piece of reading material was crucial to getting us through quarantine because I had to apply it that second," said Wiker. "I couldn't learn fast enough and was astounded by how much of the material I was able to put into practice."

Bringing followers behind the scenes

Drawing on a curriculum that includes crisis communications, decision trees and the importance of listening–along with numerous other topics–Wiker embarked on a multi-pronged approach, which included kitchen footage of the chefs making everything from scratch to let people know they can still get good, healthy food. Strategic postings, such as late afternoon



visuals of dinner specials, frequently led to numerous orders being placed for the respective selections shortly thereafter.

While it may seem obvious to post pictures of tasty dishes,

which she has done plenty of, she realized that probably was not enough to convince people their meals were being safely prepared. Wiker continued to take followers behind the scenes and showed them her masked coworkers utilizing hand sanitizer and handwashing stations along with scanners that check the cleanliness of their hands. Although people could not dine in the restaurant, they were still shown what was happening on the other side of the door.

"I did not realize how much more engagement we would get by simply being present consistently and posting from the inside," said German. "If we were not doing social media, we would not have sold so many home meals. Through March, April and the early part

of May, many Delaware restaurants were at 15 to 20 percent of their sales compared to a year ago. We were able to sustain quite a bit more and have not laid anyone off."

Social media is more than posting pictures

In addition to images and videos depicting what is happening in the restaurant, Wiker has kept busy engaging with social media followers and responding to requests. Many people have used the extra time at home to do more of their own cooking, and the Caffé Gelato marketplace has provided numerous ingredients, including yeast for the suddenly popular activity of baking bread, as well as eggs, artisan cheeses, Kalamata olives and numerous other items.



"EVERY LESSON, LECTURE AND PIECE OF READING MATERIAL WAS CRUCIAL TO GETTING US THROUGH QUARANTINE BECAUSE I HAD TO APPLY IT THAT SECOND." --KIRAN WIKER "Social media isn't just posting pictures," said Wiker. "You are also doing online customer service, and you have to be fast. If you take care of problems, are pleasant and communicate well, you get return customers."

Supporting the community

Wiker has also used Caffé Gelato's social media platforms to help the community. Beneficiaries of a campaign featuring the donation of one free meal for every takeout order placed at the restaurant have included workers at ChristianaCare, Ronald McDonald House and the Limen House.

The Delaware Restaurant Association predicted that 20% to 30% of the restaurants in the state would likely close permanently due to financial hardships. Noticing that many restaurants had gone silent and were not doing any social media, Wiker wanted to help the neighboring establishments continue to remain open. In conjunction with the Takeout Tuesday program launched by the Delaware Division of Small Business, Caffé Gelato staff members have ordered from different eateries on Main Street and posted images of the meals on social media.

Throughout the month of May, Wiker aggressively promoted Mental Health Awareness Month by sharing numerous messages from health organizations in the state. She has also spread the word about the Food Bank of Delaware's needs.

"If you can offer people information, public education and other news they might not be receiving, they can pass it along to someone who might need it," said Wiker.

Expert instruction pays dividends

Wiker, a UD graduate with a bachelor's degree in political science, greatly credits Dibert for putting her in position to succeed.

"Nancy is one of the best instructors I have ever had," said Wiker. "Her lectures and class lessons became

gospel to me. There were nights I would leave the restaurant after putting in a 12-hour day, feed my kids and put them to sleep, and study until 1 or 2 a.m. because I knew how important it was."

German describes the improvement in his restaurant's social media as night and day and can clearly see how well Wiker has grasped the lessons.

"The class has worked out even better than I expected, and my investment is paying dividends," said German. "Through her social media marketing, Kiran has been able to make sure that we have not laid off any workers at Caffé Gelato."

For those seeking introductory level education, UD PCS also has an eight-week, online Fundamentals of Social Media Marketing Certificate class. Students interested in UD's Social Media Marketing program are encouraged to find out which course best fits their needs by completing the self-assessment questionnaire at **pcs.udel.edu/socialmedia**.

Caffe Gelato Chicken Parmigiana Night 🍝 🝷 #eatlocal #staysafe Caffe Gelato is at Wilmington Hospital. April 14 · Wilmington, DE · O Dropping off Meals for our local ChristianaCare Healthcare Heroes in Unit ato · Mar 28 Caffé Gelato @caffegelato · Mar 28 Saturday Crush 🌭 😵 #pizzadelivery #SaturdayThe 00 70 Q 0 0 0 0 Caffe Gelato March 21 . O Dinner Crush 🏓 😫 Got your Saturday plans r Meals Delivered" includes: Wood-fired Artisan Antipasti & Chocolate Chip Walnut Cookies) netde #pizzalover #che Caffé Gelato @cattegelato - May 12 'ques" you were wondering, its Chicken lla Night! 🐸#eatle



CREATIVITY AND COLLABORATION

COLLABORATING ACROSS DELAWARE FOR VIRTUAL INTERACTION

By Nora Zelluk

When the University of Delaware's on-site OLLI programs were put on hold this spring due to the coronavirus pandemic, some classes were immediately able to continue their discussions virtually for the rest of the semester. Virtual social groups enabled OLLI interactions to continue, and OLLI's extracurricular needlecraft groups sewed masks for donation.

Staff and volunteers set their sights on developing and launching a fully-online OLLI program that enrolled more than 700 participants in over 40 courses and activities for a one-month summer offering in July. The model was carried over into the fall semester, which ultimately boasted over 1,900 enrollments and more than 200 course offerings.

The online, videoconferencing-based format was new to some OLLI participants, but instructors and students adapted quickly, crediting OLLI staff and volunteers for providing the needed technical support and virtual handholding. OLLI staff and member-volunteers held Zoom training sessions customized for instructors and members, and persevered through many first-time challenges.

"I am amazed at how much I'm enjoying the virtual interaction," said OLLI Kent-Sussex member Marge Felty. "We're navigating new territory together and learning in the comfort of our own homes." In addition to taking OLLI classes, Felty hosted a biweekly "Whatever Makes You Happy Hour" with fellow OLLI member Susan Watkins.

The UD OLLI programs normally operate as largely independent locations in Wilmington, Bridgeville, Dover, Lewes and Ocean View, Delaware but have



ollin instructor Sima Sariasiani adapted her ikebana class into an online offering with videotaped demonstrations and personal online feedback to participants.

joined forces to share strengths among staff, volunteers, instructors, committees and members.

Along with a wide variety of discussionor presentation-based classes covering topics like history, LGBT film, rock music, financial literacy, health and wellness, book clubs and more, there were also activity-based classes creatively adapted from a normal classroom format to work for the virtual classroom. Examples of activity-based classes included guitar singalongs and guitar instruction, card-making, folk dancing, salsa dance instruction, basket-weaving, craft and needlework circles, painting and drawing, and chess.

One example of a site-based course successfully adapted as a virtual offering is Sima Sariaslani's ikebana class. Sariaslani, a member and volunteer instructor in the OLLI Wilmington program, commented that like her OLLI class, the global community of ikebana practitioners and artists has also incorporated virtual platforms and methods. To teach her online OLLI class, Sariaslani records instructional videos for her students then provides personal feedback on the participants' ongoing flower arrangements during their videoconferencing time.

OLLI program coordinators Sally Cole and Andrea Majewski, as well as the combined UD OLLI staff, are quick to credit the success of "virtual OLLI" to the dedication of OLLI's instructors and volunteers.

They said they have been amazed at the ingenuity and hard work of OLLI instructors and volunteers as well as the adaptability and enthusiasm of OLLI members. They believe the passion and commitment of members remains at the core of OLLI's continued success.

Osher Lifelong Learning Institute

Are there topics you've always been curious about but haven't had the opportunity to explore? Join us online at OLLI this spring for engaging classes, thoughtful discussions and fun virtual learning experiences with other adults.

It's your time to learn!

The University of Delaware is proud of its history as one of the earliest and largest lifelong learning programs in the country, hosting Osher Lifelong Learning Institute (OLLI) programs throughout Delaware. Structured as academic cooperatives, OLLI programs are open to adults aged 50-plus to take and teach classes together, with course offerings determined by member interest as well as the passions and expertise of the dedicated volunteer member-instructors at each location.

This spring, our virtual OLLI classrooms will bring together lifelong learners from across Delaware and immediate surroundings to experience the benefits of lifelong learning at home and connect with a vibrant community of adult learners at the OLLI Wilmington and OLLI Kent-Sussex programs.

Online classes are offered on a wide array of subjects through the Zoom videoconferencing platform and are

MORE THAN 200 COURSES OFFERED ONLINE THIS SPRING!



• Elder Law

Genealogy

Workshop

• Gardening With

• Grimms' Fairy Tales

Native Plants

- American Sign Language
- Dementia Caregivers' Group
- Drawing Fundamentals

- History of American Art
- International Folk Dance
- iPhone Photography
- LGBT Films
- Making Fabric Jewelry
- Memoir Writing
- Retirement Investing
- What Darwin Didn't Know
- Many additional topics in languages, special interest clubs, health and wellness, science, art and much more!

SPRING CLASSES OFFERED ONLINE

all taught by experienced OLLI instructors from across Delaware and surrounding areas.

All aspects of this joint program occur online, including registration, payment and class activities. Free training and technical assistance is available throughout the process to support all course participants.

For more details, visit olli.udel.edu/ online.

UD OLLI Online

302-573-4417 OLLI-Online@udel.edu olli.udel.edu/online/

Interested in additional lifelong learning opportunities?

The University of Delaware's Master of Arts in Liberal Studies (MALS) program is great for intellectually curious adults. The interdisciplinary program gives students the flexibility to follow their academic passions by shaping their own courses of study. Composed of small seminar classes, which invite broad thinking on issues of importance, the program is designed for returning adult students who can attend classes in the evening.

CONTACT: 302-831-4130 · mals.udel.edu mals-info@udel.edu

olli.udel.edu



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UNIVERSITY OF DELAWARE

CONTINUING STUDIES

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PROFESSIONAL DEVELOPMENT LIVE-ONLINE INFORMATION SESSIONS JANUARY 19 - 21

Held each evening at 7 p.m.

Visit pcs.udel.edu/info-session for program schedule and to RSVP.

Register and pay in full for a spring 2021 certificate program on or before January 23 and receive a 10% discount.