



UNIVERSITY OF DELAWARE
**PROFESSIONAL &
CONTINUING STUDIES**

FALL 2022

PROGRAMS AND COURSES

THE VALUE OF CONTINUING EDUCATION

New job skills help
student achieve
recognition and
advance in her career

INSIDE:

The benefits of
learning and studying
with a friend

10 reasons why you
should be a lifelong
learner

Celebrating
70 YEARS
of Services!

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INVEST IN CONTINUING EDUCATION

UD PCS programs pay dividends

Writing for *The Balance Careers*, career expert Alison Doyle said, “To keep up with trends in your industry, compete for jobs and do your best work, you need to refresh your skills. ... Continuing your education helps you sharpen your skill set, embark on new career paths and stay current with any professional licensure.”

Doyle’s words remind us of Karen Larkin, Jennifer Gallmann, Elaine Buonopane and so many other students in our University of Delaware Division of Professional and Continuing Studies (UD PCS) programs. Although Larkin, Gallmann and Buonopane were already established professionals balancing careers with their families and additional commitments, they all recognized the value of investing in continuing education and were rewarded for their time and effort.

Friends and former coworkers, Larkin and Gallmann enrolled in our **Project Management Certificate program** together in spring 2020 and supported each other throughout the class, which led to their subsequent, successful pursuit of the coveted Project Management Professional (PMP) certification. At the same time Larkin and Gallmann were enhancing their project management skills, longtime M. Davis & Sons employee Elaine Buonopane was participating in our **Advanced Social Media Marketing for Business Certificate program**. Along with positive responses to her implementation of the course’s lessons by those outside the organization, her work was recognized internally with a promotion to marketing and digital media specialist.

Just as stocks, bonds, real estate and other investments are generally bought with the intention of increasing one’s wealth, the wealth of skills, knowledge and confidence provided by an investment in continuing education can also pay handsome dividends.

Much like a scrolling stock ticker, this guide is filled with an array of possible investments.

In addition to Larkin’s, Gallmann’s and Buonopane’s stories, you can read about all of the other personal investment opportunities we have brought to market, including

Professional Drone Pilot: Ground School and FAA Part 107 Test Prep, UD Montessori Teacher Residency (UDMTR), Clinical Trials Management, Predictive Analytics and Data Mining, Foundations of R for Data Analysis, and the Osher Lifelong Learning Institute.

Responding to the needs of in-demand industries, we are pleased to introduce three programs to our listings: **Foundations of Brewing Science and Brewery Operations, Cybersecurity Fundamentals for Practitioners and Managers, and Instructional Designer Certificate**. Providing benefits and resources to help you succeed, we have also launched **UD PCS Career Services** for students in many of our noncredit professional development programs.

Our prices do not fluctuate throughout the day like businesses on the stock market, but we certainly do all we can to help you buy low and gain high returns on your investment. In addition to scholarships and payment plans, we have a variety of discounts that you may qualify for. Thanks to the **Elevate Delaware** initiative, you could be eligible to complete a noncredit professional development program from UD at no cost to you.

Please do not hesitate to contact us with any questions you have about how we can help you make a sound investment in continuing education, where there is always a bull market.

Hope to see you soon!

What can UD do for you?

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ON THE COVER: UD PCS graduate Elaine Buonopane. Photo by Meghan Newberry Photography.

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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

Fall course delivery format

While many of our continuing education courses are traditionally offered through an in-classroom learning format, many fall 2022 courses will be taught in a live-online format via videoconferencing. Should a change occur in course delivery format, enrolled participants will be notified as soon as possible.

For information about the University of Delaware's response to COVID-19, see udel.edu/coronavirus.



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 new 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.
- 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. All seminars are offered live-online, via Zoom.

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 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 nonadmitted students. A wide variety of courses are offered in the evening and online.

- **The fall semester begins Aug. 30.**
- **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.

Want 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 New Castle, Kent and Sussex counties and online for adults to enjoy classes, teach, exchange ideas and learn together. Try out a new language, meet with a passionate discussion group or revisit your favorite areas of study from the comfort of your home or on location. These volunteer-based academic cooperatives offer hundreds of courses each year, with no grades or exams and no educational prerequisites. **See page 36 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 for current open enrollment programs in business, healthcare and others, as well as 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 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.

Contact us to discuss your customized learning and community partnership needs.

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 resume-building credentials. Our faculty and adjunct instructors combine strong academic backgrounds with extensive real-world experience. Programs include:

- **Business & IT**—Business Analysis, Business Analytics, Cybersecurity, Design Thinking, Digital Marketing, Foundations of R for Data Analysis, Microsoft® Excel, Nonprofit Leadership, Predictive Analytics and Data Mining, Project Management, Sales Development Science, Sales Operations Science, Self-Paced Programs, Social Media Marketing
- **Drone Training**—Ground School and FAA Part 107 Test Prep
- **Education**—Instructional Design, UD Montessori Teacher Residency
- **Food and Hospitality**—Brewing Science and Brewery Operations
- **Healthcare**—Advanced Telehealth Coordinator, Clinical Trials Management, Dental Symposium, Eastern Shore Medical Symposium, RN Refresher
- **Law**—Paralegal, LSAT Prep
- **Pre-College**—UD Dual Enrollment, SAT/ACT Prep
- **Safety**—COSS (Certified Occupational Safety Specialist)
- **Test Preparation**—ACT, GMAT, GRE, LSAT, SAT, Praxis

See pages 4–30 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 31–35 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 fall 2022 professional development programs, speak with instructors and ask questions about the programs you're interested in.

Tuesday, July 26
7–8 p.m.

Business Analytics Science

Business Analysis

Design Thinking Workshop

Cybersecurity Fundamentals

Foundations of Digital Marketing

Foundations of R for Data Analysis

Microsoft® Excel

Nonprofit Leadership

Predictive Analytics and Data Mining

Project Management

Sales Development Science

Sales Operations Science

Social Media Marketing

Meeting information sent upon registration

pcs.udel.edu/info-session

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

Tuesday, September 20 and
Wednesday, September 21, 2022

Business Analysis Module 2:

Eliciting and Documenting Requirements

Tuesday, October 11 and
Wednesday, October 12, 2022

Business Analysis Module 3:

Requirements Analysis and Design Definition

Tuesday, November 8 and
Wednesday, November 9, 2022

Business Analysis Module 4:

Solution Deployment and Evaluation

Tuesday, December 6 and
Wednesday, December 7, 2022

All classes are scheduled from 9 a.m. to 4 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).

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

NONCREDIT CERTIFICATE | ONLINE

Business Analytics Science Certificate

Delivered online, the Business Analytics Science Certificate program is taught by industry experts and covers the key areas required to be effective at utilizing data to help an organization optimize its business processes by making better, more informed decisions. In this 10-week course, you will learn key concepts and strategies, get hands-on practice (with feedback from experts) and earn in-demand credentials. Along with creating a Business Analytics Playbook to help a real-world company leverage data to extract and visualize actionable insights using the latest techniques and industry tools, you will also learn strategic concepts such as data modeling, accessing data with SQL, data visualization and KPI development.

In addition, you'll walk away with hands-on technology experience and be fully prepared to take your Tableau Desktop Specialist Certification exam. 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, one-hour, optional but recommended group sessions are available for engaging in real time with peers, experts and mentors.

WHO SHOULD PARTICIPATE?

- Individuals considering a career in an analytics-related capacity who want to build data-oriented skillsets and gain their Tableau Desktop Specialist Certification
- Business-focused professionals looking to develop new skills to expand career opportunities or improve potential for advancement in marketing, sales, finance, business operations, human resources or other related fields
- Recent graduates looking to gain a big-picture understanding of business analytics and build in-demand skills employers are seeking
- Entrepreneurs looking to grow their business by utilizing skills in data extraction, modeling and visualization

SCHEDULE: Classes start monthly. Please visit our website for schedules.

LOCATION: Online

PRICE: \$1,999, course materials included.

ba.pcs.udel.edu

CREDIT CERTIFICATE | ONLINE OR IN-CLASS

Business Essentials Certificate

Undergraduate credit certificate program focused on business essentials for non-business professionals. See page 32.

SHORT COURSE | LIVE-ONLINE

Design Thinking Workshop

Design thinking is a foundation of innovative products and memorable user experience (UX). It is an iterative process in which we seek to understand the problem, get to know the user, challenge assumptions and redefine problems in an attempt to identify alternative strategies and solutions that might not be instantly apparent with our initial level of understanding. At the same time, design thinking provides a solution-based approach to solving problems by embracing creativity techniques, customer co-creation and experimental design. It is a way of thinking and working as well as a collection of hands-on methods.

Immerse yourself in the value of design thinking with this two-day workshop that covers the framework, mindsets and

proven techniques to achieve superior solutions to the problems of your business. Gain hands-on experience with the tools and templates via a real design thinking challenge that focuses on a common user experience problem. This training is meant for aspiring design thinkers, UX designers, product managers, design strategists and innovators, as well as existing practitioners and executives seeking to incorporate design and human-centricity into company strategy in order to optimize customers' and employees' experiences with their company/products/services/brands.

Team pricing of \$5,980 for five members of the same organization is available. Organizations purchasing seats for a group are encouraged to have the participants bring a real-life challenge they would like to solve to the class.

WHO SHOULD PARTICIPATE?

- Executives
- Product managers
- Business analysts
- Customer experience leaders and customer success managers
- IT and solution designers
- Operational excellence and Lean Six Sigma personnel
- Change managers
- Marketing managers
- Business and sales managers
- Entrepreneurs
- UX and UI Practitioners

SCHEDULE: Tuesday and Wednesday, October 18 and 19, 2022, 9 a.m.–4 p.m.

LOCATION: Live-online

PRICE: \$1,495. Course materials included.

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

pcs.udel.edu/design-thinking

NONCREDIT COURSE | ONLINE

NEW! Cybersecurity Fundamentals for Practitioners and Managers

Cybersecurity is an essential topic for many businesses, schools, banks and other organizations. As our lives evolve online, it is critical to prioritize securing our online

identities and assets. Additionally, with online business transactions becoming a standard, every employee must understand how to keep information and their networks safe. Designed to give participants a general awareness of cybersecurity and to familiarize them with basic tools and terminology, this course covers fundamentals of cybersecurity and acts as a starting point into a cybersecurity career. The goal is to provide participants with the skills to enable them to transition into a cybersecurity operations or administrator role. No prior cybersecurity experience is required.

Topics include:

- Cybersecurity terms
- Networking
- Attacks, vulnerabilities, threats
- Security assessments, mitigation and penetration testing
- Cybersecurity framework
- Risk assessments

WHO SHOULD PARTICIPATE?

- Anyone interested in a career change who possesses an interest in technology and security

SCHEDULE: Self-paced course with seven optional live-online, instructor-led sessions on Wednesdays, September 21–November 2, 2022.

LOCATION: Online

PRICE: \$1,495. **Potential discounts available including: Early registration, Military, UD student or alum.**

pcs.udel.edu/cybersecurity-fundamentals

NONCREDIT COURSE | ONLINE

Foundations of Digital Marketing

What is digital marketing and why does it matter to businesses? How can you incorporate digital into your marketing mix to meet your audience online? The objective of this course is to introduce foundational marketing concepts needed for digital marketing. Participants will learn to:

- Define digital marketing terms
- Differentiate between the characteristics of traditional and digital marketing
- Differentiate among inbound and outbound marketing strategies
- Distinguish between the different digital channels and the opportunities they provide for business online



UD PCS SOCIAL MEDIA MARKETING PROGRAM AIDS LOCAL BUSINESS

Lessons help student's career advancement

By Adam S. Kamras

Recognizing the need for M. Davis & Sons to significantly ramp up its social media presence about 10 years ago, the industrial construction company's CEO, Peggy Del Fabbro, tasked longtime employee Elaine Buonopane with leading the effort.

Buonopane, a marketing and operations coordinator at the time, had been dabbling in social media and knew she had a lot to learn. Embracing the challenge posed to her by Del Fabbro, she began attending seminars and conferences in an attempt to gain all the knowledge she could about social media marketing.

"I credit Peggy with really making a marketing push toward social media," said Buonopane. "She said we are missing the boat if we don't get out there and do it. With her behind me, I just kind of went for it."

Taking a strategical approach

Though she was comfortable with the act of posting on various social media platforms, such as Facebook and LinkedIn, Buonopane knew she needed to acquire a greater understanding of the strategic process of doing it for a business.

"I wasn't really sure what to post and how to go about it, and I didn't want us to look foolish," said Buonopane. "There is also the time factor of working it into your schedule. It's like having another mouth to feed. You have to take care of it."

Acknowledging the forward strides she was making on Del Fabbro's request and her desire to keep progressing, Buonopane's supervisor,

Christina MacMillan, encouraged her to enhance her education by enrolling in the **Advanced Social Media Marketing for Business Certificate** program offered by the University of Delaware Division of Professional and Continuing (UD PCS). In spring 2020, Buonopane completed the 15-week online course, which teaches students with fundamental to midlevel social media marketing skills to effectively and successfully leverage the power of social

media to support organizational goals, and said the quality and variety of the material presented was a lot more than she expected.

"I learned how to take a brand that is looking for social media marketing and build its presence from the ground up," said Buonopane. "Because it was an

advanced class, we dug in deep with lessons on strategies, campaigns and how to really gain some traction."

Serving multiple purposes

One of the first lessons Buonopane benefited from was how to conduct an audit on a company's social media activities. By assessing what an organization has done on social media and what it is trying to accomplish, a strategy can be developed. While the obvious intent is to increase business for the company headquartered in Wilmington, Delaware, M. Davis also uses its platforms to attract future employees, interact with its current staff, bring awareness to its training programs for students and connect with members of the region.

"For M. Davis, it is not just about construction," said Buonopane. "It's about what we do for Delaware and how we help and

"I think I can attribute my promotion to the University of Delaware. The two classes I took were awesome and really key."

—Elaine Buonopane

impact our local communities. The class helped me evolve our content and attract a wider audience. People do not want to follow a construction company that just shows employees welding or moving large pieces of equipment. That is great, but it is just one piece of the puzzle. We need to have a rotation that includes fun posts, interesting posts, industry-related posts and community-related posts.”

Buonopane has used the teachings from the class to implement several targeted campaigns, including one to increase brand awareness and another to encourage people to register for a free webinar with an M. Davis subject matter expert about a power distribution product. Her campaigns have been utilizing video production, which she learned a lot about in the program.

Convenient online format

Conducted in an asynchronous format, students in the University of Delaware’s Advanced Social Media Marketing for Business Certificate program review the materials when it is best for their schedule. Though there are weekly deadlines to meet, being able to study the lessons on her time and not having to travel to class worked very well for Buonopane, a mother of three who balances her career with her family and other commitments.

“While there is value to an in-person experience, I definitely appreciated the online format,” said Buonopane. “I probably got more out of it by being able to do the readings and watch the videos when I could instead of rushing to class after dropping one of my kids off in the driveway following a practice and not being prepared or fully present for what we were working on.”

Job well done

Along with positive responses to her targeted campaigns by those outside the organization, her work has been recognized internally by her coworkers, including Del Fabbro. In December 2020, Buonopane was promoted to marketing and digital media specialist. In addition to continuing to handle and grow the social media for M. Davis, she has been charged with heading a rebuild of the company’s website.

“Social media engagement was, and still is, an important marketing strategy for M. Davis & Sons,” said Del Fabbro. “Years ago, I believed that getting active on our social platforms would increase our visibility. Working with Elaine to increase our social media started a push toward digital marketing. She has developed engaging content and posts and has launched new channels for M. Davis.



Through UD’s Advanced Social Media Marketing for Business Certificate program, Elaine was well-equipped to manage our social channels and digital media.”

Expert and supportive instruction

Buonopane gives great credit to the knowledge she gained and the productive online learning format to Nancy Dibert, program director and instructor for the UD PCS Social Media Marketing program and CEO of EPIC Marketing Consultants.

“Even though the class was remote, I definitely did not feel like I was on my own,” said Buonopane. “I could email Nancy, send her a message through the Facebook group where all of the class materials were downloaded or post a question within a module, and she was always super responsive and available. She welcomed the students’ conversations, input and comments and was helpful in guiding the discussions. I never felt like I was asking a stupid question.”

Buonopane also appreciated that the curriculum can be adapted to the makeup and needs of any organization.

“You can come from a large business and you can come from a mom and pop kind of business,” said Buonopane. “There really is information that helps every level of business. It is not just geared for a Fortune 500 company with a massive budget.”

Classes open for registration

Because of her positive experience in the Advanced Social Media Marketing for Business Certificate program, Buonopane also participated in Dibert’s Search Engine Optimization short course. Along with several other digital marketing short courses, Search Engine Optimization is in the process of being converted to an online, on-demand format. The first course of the series, **Foundations of Digital Marketing**, is open for registration.

“I think I can attribute my promotion to the University of Delaware,” said Buonopane. “The two classes I took were awesome and really key. I cannot wait for the next digital marketing classes that are rolled out.”

The fall session of the Advanced Social Media Marketing for Business Certificate program begins Sept. 6. For those seeking introductory level education, UD PCS also has an online Fundamentals of Social Media Marketing Certificate course.



- Distinguish examples of digital media used in digital marketing
- Coordinate a competitive analysis
- Differentiate between types of benchmarking
- Conduct a SWOT analysis
- Develop a brand standard
- Discover target audiences and craft audience personas
- Create customer journey maps and marketing funnels
- Craft a brand story

WHO SHOULD PARTICIPATE?

- Anyone involved in the planning, implementation or measurement of digital strategies or who would like to pursue a career in these areas

SCHEDULE: Self-paced class can be started anytime.

LOCATION: Online

PRICE: \$495. **Potential discounts available including: Early registration, Military, UD student or alum.**

pcs.udel.edu/digital-marketing

NONCREDIT CERTIFICATE | IN-CLASS

Foundations of R for Data Analysis Certificate

With the rise of data science and data analytics over the past decade, the R programming language has become increasingly valuable for organizations. R is an open-source, statistical programming language that allows users to easily extract, clean, visualize and model data. Whether your goal is to become a data scientist or to move beyond Excel, R is a valuable tool to acquire. In this course, participants will learn to utilize the R programming language in order to perform data analysis in a work context. They will understand how to perform an exploratory data analysis with a focus on the tidyverse, the cohesive collection of R packages. In addition, participants will gain an understanding of tools that are necessary to perform these analyses in the workplace, including Git and R Markdown.

This foundational level course welcomes anyone to enroll, and no programming

experience is required. It focuses on the mechanics of programming with R and not on statistical modeling techniques.

WHO SHOULD PARTICIPATE?

- Excel users looking to switch to more programmatic ways of completing analyses
- Current college students needing to utilize R for future coursework
- Anyone considering a career change into data science or data analytics

SCHEDULE: Mondays, September 26–November 14, 2022, 6–9:15 p.m.

LOCATION: Arsht Hall, Wilmington, Del.

PRICE: \$1,495. **Scholarships and potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).**

pcs.udel.edu/foundations-of-r

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 365 or a previous version.

\$1,175 bundle pricing for all three Microsoft Excel courses, save over \$300!

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, September 6–October 4, 2022, 6–9 p.m.

LOCATION: Live-online

PRICE: \$495, course materials included. **Potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group), UD employee.**

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: Thursdays, October 13–November 10, 2022, 6–9 p.m.

LOCATION: Live-online

PRICE: \$495, course materials included. **Potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group), UD employee.**

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.

WHO SHOULD PARTICIPATE?

- Students, recent graduates and other job seekers with Excel skills who wish to

learn advanced Excel reporting and analytics.

SCHEDULE: Wednesdays, November 16–December 21, 2022, 6–9 p.m. (No class on November 23)

LOCATION: Live-online

PRICE: \$495, course materials included.

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

pcs.udel.edu/ms-excel

NONCREDIT CERTIFICATE | HYBRID

Nonprofit Leadership Certificate

Designed for staff and board members of small to midsized nonprofit organizations, the Nonprofit Leadership Certificate program provides training for nonprofit leaders wishing to manage their organizations efficiently and effectively. Taught by accomplished trainers in the nonprofit sector, this course allows participants to develop action plans for their program or organization while also providing a valuable peer-to-peer networking opportunity. Topics include:

- Organizational assessment and strategy
- Financial management
- Fundraising and grant writing
- Strategic technology planning
- Leadership in nonprofit organizations
- Board governance
- HR management, employment law
- Program evaluation
- Volunteer management
- Advocacy
- Marketing
- Conflict resolution
- Leadership succession planning

WHO SHOULD PARTICIPATE?

- Executives, midlevel managers and program managers of nonprofit organizations
- Managers and leaders transitioning to the nonprofit sector from other sectors

SCHEDULE: Thursdays, September 1–December 15, 2022, 8:30 a.m.–4:30 p.m.

FORMAT: Hybrid. 8 full-day, in-person sessions (8:30 a.m.–4:30 p.m.), 7 half-day, synchronous online sessions (9–11:30 a.m.) and asynchronous content. Detailed class

schedule available at pcs.udel.edu/nonprofit-training.

LOCATION: 100 West 10th St., Community Service Building, Suite 812, Wilmington, Del.

PRICE: \$2,595. **Discounts and financial assistance options available. Package pricing available for organizations that send more than one person from their leadership team.**

pcs.udel.edu/nonprofit-training

NONCREDIT CERTIFICATE | IN-CLASS

Predictive Analytics and Data Mining Certificate

Turning historical data into future insights

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 data that provides organizations with insights that can be used toward effective decision-making and improved business performance to build future success. This certificate program brings together statistics, analysis, data mining 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 prior college-level statistics course and/or working knowledge 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
- Healthcare industry professionals
- Financial industry professionals
- Anyone who wishes to learn how to use historical data to predict future outcomes

SCHEDULE: Mondays, September 12–December 14, 2022, 6–9:15 p.m. (Class meets twice in the final week on Monday and Wednesday.)

LOCATION: Arsht Hall, Wilmington, Del.

PRICE: \$2,895, optional textbook additional. **Payment plan, scholarships and poten-**

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

pcs.udel.edu/data

NONCREDIT CERTIFICATE | LIVE-ONLINE

Project Management Certificate

Learn project management best practices and theories for Waterfall, Agile and Hybrid methodologies

Successful companies and organizations in all fields 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 in this course learn by applying these tools and experiencing both the art and science of managing a successful project through the project life cycle. Whether you are new to the project management discipline or looking to formalize your project management experience, this course provides current foundational knowledge to boost your project management skills. Participants will define a project and explore best practices in predictive (Waterfall), adaptive (Agile) and Hybrid project methods, applying the tools required for successful project delivery. Students acquire a set of functional tools and techniques that can immediately be applied in the workplace.

This course provides current foundational knowledge and offers an opportunity to earn the professional development units (PDUs) required by the Project Management Institute (PMI®) to maintain certifications or earn the contact hours needed to apply for a certification exam. While delivering best practices, this course is not specifically designed for exam preparation. The curriculum is aligned with the current PMP® exam content outline and applies principles from the PMBOK® (A Guide to the Project Management Body of Knowledge®) and the PMI® Agile Practice Guide, as well as references from other leading publications.

WHO SHOULD PARTICIPATE?

- Newly promoted/aspiring project managers



Friends and former coworkers, Karen Larkin (left) and Jennifer Gallmann (right) enrolled in our Project Management Certificate program together in spring 2020 and supported each other throughout the class.

ACCOUNTABILITY PARTNERS OFFER MUTUAL SUPPORT IN PCS PROGRAM

Friends take Project Management Certificate course together

By Adam S. Kamras

Jennifer Gallmann was confident the **Project Management Certificate** program offered by the University of Delaware Division of Professional Continuing Studies (UD PCS) could help her in her career, but she was still hesitant to enroll.

Gallmann, who earned her bachelor's degree from UD in 1990 and completed the **PCS Paralegal Certificate** program shortly thereafter, has held a variety of project management-related roles over the years, mostly doing information technology work in the pharmaceutical industry. Though she knew she had a background that would enable her to thrive in the program, the midcareer professional did not know if she was ready to be a student once again at this point of her life.

"I had not been in a college class in many, many years, so the thought of going back to school was a bit intimidating to me," said Gallmann.

Following some thought as to how the endeavor could be less daunting, she reached out to one of her friends and former coworkers, Karen Larkin, to see if she would be interested in taking the class with her.

Larkin agreed, and the accountability partners completed the program together in spring 2020. Not only did they support each other throughout the class, but they continued to provide mutual motivation during their preparation for the Project Management Professional (PMP) certification exam, which they both passed later

"Going into this class, I thought that I was not going to learn anything new because I had been doing it for so long, and I was sorely mistaken."

—Jennifer Gallmann

in the year. While UD's Project Management Certificate program is not a PMP exam preparation course, it provides current foundational knowledge and offers an opportunity to earn the contact hours needed to apply for the certification exam.

Sharing ideas and observations

"It looked like a really good opportunity, and I thought what better way to engage in something new than to do it with a friend and a former coworker," said Larkin. "Sometimes it can be a little scary doing something new. You learn much better when it is fun. We all do better when we have a rapport with the people we are learning with."

Along with sharing notes and talking about the various concepts and topics that were addressed in class, Gallmann and Larkin enjoyed the opportunity to catch up with each other on a personal level when time permitted. They regularly took advantage of being in the program together by having conversations about the material presented.

"It was really nice to be able to have someone to bounce ideas off who I was already familiar with," said Gallmann. "There is no way I would have passed that exam without this class and without Karen."

PMP certification highly recognized

Gallmann's initial interest in the University of Delaware's Project Management Certificate program was greatly influenced by her desire to earn her PMP certification. Though the designation has

been around since 1984 when 56 people took the exam and 43 passed to become the first Project Management Professionals, its prominence has grown substantially with more than 1 million certification holders worldwide.

“Companies really now recognize that project management is a career,” said Gallmann. “I thought it would be a really good career growth opportunity to have that recognized credential by my name. That was my motivation.”

More than required hours

While Gallmann might have been inspired to enroll to take a big step toward certification, she gained a lot more from the program than the required contact hours. She was especially impacted by the lessons on resource management, which she has been applying in her current position as an information technology business analyst. Being able to plan how to utilize their resources to complete their work has made her and her team more productive.

“Going into this class, I thought that I was not going to learn anything new because I had been doing it for so long, and I was sorely mistaken,” said Gallmann. “I learned a lot.”

Skills widely applicable

Larkin, who has worked in healthcare in various capacities throughout her career, was not too familiar with the PMP certification until Gallmann contacted her. Having earned a bachelor’s degree in 1990, a master’s in public health administration in 1995 and an MBA in 1997, she was not necessarily looking to add any more letters next to her name but was interested in increasing her skill set.

“The PMP certification was not on my radar,” said Larkin. “I was not seeking it out as part of my career development, but when Jennifer mentioned this opportunity, I thought it could be a really good certification to have.”

Though Larkin has had different job titles throughout her career, she quickly learned how project management skills were applicable to much of what she had done in the past and continues to do today. She was promoted to the role of associate director for a large pharmaceutical company last July and partly attributes her advancement to the PMP certification. The first word that comes to mind when she thinks about the University of Delaware’s Project Management Certificate program is stakeholders.

“There are a lot of things that can go wrong in a project, and you need to make sure you have the right players in the room,” said Larkin. “You cannot make well-informed decisions unless you are getting the information you need from the stakeholders, the people who are likely beneficiaries of your project and are in a position to make it successful.”

Making in-class connections

While Gallmann and Larkin had the advantage of knowing each other before the course began, they also learned plenty from their other classmates and concur that strong connections can be made during the program as well.

“Whether you know who that accountability partner is going in or you find your accountability partner during the course, it is so key and helpful to have someone with a shared goal,” said Larkin. “It’s very doable, but having an accountability partner makes it that much easier to accomplish. The course allows you to meet other people interested in pursuing the certification you can check in with along the way.”

Touching many industries

With a diverse roster consisting of students working in banking, nonprofit, healthcare, information technology, military, legal and other areas, Gallmann and Larkin were able to understand how project management skills and concepts are applicable across all industries. The students shared their collective knowledge and experience on a group project, which Gallmann said was a big benefit.

“The group project and presentation mirrored the professional world,” said Gallmann. “When all of us are at work, this is what we do. None of us work in a vacuum. It is all about collaborating with colleagues and communicating. The instructor did a great job of treating us like adults and professional people. It was not a lecture-exam class.”

Program pivots to online

Though it turned out to be a minor bump in the road, rather than a roadblock, the course was quickly transitioned from an in-person to a live-online format when COVID-19 necessitated much of the world to make a similar shift in March 2020. Gallmann and Larkin credit their instructor and classmates for enabling a seamless pivot.

“I am very appreciative that the University and specifically our instructor were so accommodating and committed to getting us past the finish line,” said Gallmann. “We’re all professionals, so whether we were already working at home or just used technology in our offices, it was not a big deal.”

Continuing to be offered live-online, the University of Delaware’s 10-week Project Management Certificate program begins Oct. 4. Discounts are available, including for two or more individuals registering from one organization, and a payment plan is offered. For more information, visit pcs.udel.edu/project, email continuing-ed@udel.edu or call 302-831-7600.



FUNDING AVAILABLE FOR NONCREDIT PROFESSIONAL DEVELOPMENT



The Delaware Department of Labor's **Elevate Delaware** program helps fund professional development and training opportunities for individuals and employers. If you meet program eligibility requirements, you could complete a UD professional development noncredit program at no cost to you!

With \$1.5 million allocated to Elevate Delaware, the program is available to individuals who work in Delaware for organizations with fewer than 51 employees. "The Elevate Delaware program provides an excellent opportunity for individuals to obtain significant funding to help meet their professional development goals, as well as for employers to obtain support for training and development for their staff and team members," said Vic Wang, director of UD PCS noncredit professional programs.

Providing up to \$10,000 to eligible individuals enrolling in approved noncredit professional development programs, the program enables Delaware workers to earn valuable credentials from the University of Delaware's Division of Professional and Continuing Studies (UD PCS). Funding may also be available to help Delaware organizations build and facilitate customized UD professional development courses for their employees or members.

For details, visit pcs.udel.edu/elevate-delaware.

- Project leaders interested in achieving the next level of management skills
- Project managers seeking to meet the project management education hours requirement for the Project Management Institute's PMP® or CAPM® certifications
- Anyone seeking to better understand fundamental project management principles to increase project success, whether personal or professional

SCHEDULE: Tuesdays, October 4–December 13, 2022, 6–9:30 p.m.

LOCATION: Live-online

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

pcs.udel.edu/project

NONCREDIT CERTIFICATE | IN-CLASS

NEW! 3-Day Project Management Boot Camp

Receive a solid foundation in project management in three days

The 3-Day Project Management Boot Camp is designed to provide a solid foundation for participants who seek to further their education in the field of project management. The delivery of subject matter is supported by the global standards of the Project Management Institute® and PMBOK® Guide—Sixth Edition. To ensure a collaborative project environment, participants will work in teams to enhance effective organizational leadership and change skills for managing projects and engaging stakeholders. Through the fostering of critical thinking and analytical decision making skills, participants will be able to apply the integration of the project life cycle processes and knowledge areas for the effective management of projects.

To effectively teach these skills, a combi-

nation of classroom lecture, participant exercises, group activities and discussion are used to reinforce the learning and main objectives.

WHO SHOULD PARTICIPATE?

- Newly appointed or aspiring project managers
- Experienced project leaders who want to take their management skills to the next level
- Managers who want to apply the discipline of project management to make their organizations more effective and more competitive
- Business and management professionals who want to enhance their planning and resource management knowledge
- Project managers seeking an entry into the Project Management Institute's PMP® (Project Management Professional) certification process

SCHEDULE: August 9–11, 2022, 8 a.m.–5 p.m.

LOCATION: College of Earth, Ocean and Environment—Hugh R. Sharp Campus, 700 Pilottown Road, Lewes, Del.

PRICE: \$1,595. **Potential discounts available, including: Early registration, Military, UD student or alum, 2 or more (group).**

pcs.udel.edu/project-management-boot-camp

NONCREDIT CERTIFICATE | ONLINE

Sales Development Science Certificate

The explosion of new technologies has transformed selling activities within any sales team. Tools, data, analytics, protocols and processes now play as big a role as persuasion and persistence. The Sales Development Science Certificate explores the science behind these activities and the data-driven strategies for developing, managing and converting sales leads and pipeline into revenue. Delivered online, this 10-week course is taught by industry experts and covers all of the key areas required to sell more efficiently and effectively. Along with creating a Sales Development Playbook to advance a real-world company's sales team efforts for increased sales performance and revenue, you will learn strategic concepts

such as data management, customer value proposition and insights, customer personas and prospecting, pipeline management, and opportunity development. In addition, you will have access to a live Salesforce developer instance where you'll work hands-on in the industry-leading CRM technology. You will walk away with a curated collection of Salesforce Trailhead badges to highlight your new skills and knowledge. 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, one-hour, optional but recommended group sessions are available for engaging in real time with peers, experts and mentors.

WHO SHOULD PARTICIPATE?

- Individuals considering a career in a sales-related capacity who want to build new skill sets and gain in-demand Salesforce Trailhead badges
- Early-stage sales or business-focused professionals looking to fill in their knowledge and skills gaps and upgrade long-term growth potential
- Entrepreneurs and small business owners looking to maximize lead, pipeline development and revenue generation

SCHEDULE: Classes start monthly. Please visit our website for schedules.

LOCATION: Online

PRICE: \$1,199, course materials included.

salesdev.pcs.udel.edu

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 generate more revenue, you 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, one-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: Classes start monthly. Please visit our website for schedules.

LOCATION: Online

PRICE: \$1,199, course materials included.

salesops.pcs.udel.edu

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. As they explore utilizing social media to support organizational goals, students will view presentations and materials at their convenience and receive detailed feedback on assigned knowledge checks throughout the self-paced course. They can also schedule a time to meet with the instructor for further discussion.

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: Self-paced class can be started anytime.

LOCATION: Online

PRICE: \$495. *Potential discounts available, including: Early registration, Military, UD student or alum.*

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, fast-paced 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

working on their individual 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: September 6–December 18, 2022 (self-paced online course with weekly scheduled assignments and deadlines)

LOCATION: Online

PRICE: \$2,495. *Payment plan, scholarships and potential discounts available, including: Early registration, Military, Nonprofit, 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.

- **AEM®/CEM® Prep (U.S. version)–\$399**
- **Agile Certified Practitioner (PMI-ACP)® Exam Prep–\$549**
- **aPHR(tm) Exam Prep–\$395**
- **CAPM® Exam Prep Course–\$599**
- **Certified Global Business Professional (CGBP) Exam Prep–\$799**
- **Challenges for Agile Teams–\$179**
- **CISSP® Exam Prep–\$599**
- **CompTIA Project+® Exam Prep Course–\$250**
- **CompTIA Security+® Exam Prep–\$399**
- **Foundations of Finance Essentials–\$495**
- **Foundations of Human Resource Management–\$495**

- **GED® Test Prep Four-Part Bundle–\$99**
- **Integrating Agile into a Waterfall Environment–\$125**
- **Introduction to Agile–\$299**
- **Introduction to Emergency Management in the U.S.–\$249**
- **Lean Basic–\$299**
- **Lean Six Sigma Basics–\$799**
- **LEED® Green Associate V4™ Exam Prep–\$329**
- **Microsoft® Project Basics–\$99**
- **Microsoft® Project Intermediate–\$99**
- **PgMP® Exam Prep Course–\$599**
- **PHR® Exam Prep–\$395**
- **Principles of Scrum–\$349**
- **Project Risk Management: PMI-RMP® Exam Prep–\$599**
- **Six Sigma Basics–\$499**

Foundations of Business Communication Bundle–\$395

- **Communicating Collaboratively–\$99**
- **Effective Business Writing–\$99**
- **Effective Emails, Memos, and Letters–\$99**
- **Effective Presentations–\$99**
- **Effective Public Speaking–\$99**

Foundations of Managing Change and Resolving Conflict Bundle–\$695

- **Communicating Collaboratively–\$99**
- **Emotional Intelligence for Managers–\$99**
- **Handling Difficult Employee Behavior–\$250**
- **Handling Workplace Conflict–\$99**
- **Leading and Managing Change–\$99**
- **Negotiations: Resolving Disputes–\$99**

Foundations of Negotiation Bundle–\$249

- **Introduction to Negotiations–\$99**
- **Negotiations: Making Business Deals–\$99**
- **Negotiations: Resolving Disputes–\$99**

Project Management Professional Development Unit Bundles

- **Leadership PDU Bundle–\$299**
- **Strategic PDU Bundle–\$299**

LOCATION: Online

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

pcs.udel.edu/self-paced

Drone training program

Free Live-Online Information Session

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

Wednesday, July 26
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 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. Please contact UD PCS to discuss pricing and scheduling options.

SCHEDULE: Saturday, September 17,
Sunday, September 18 and Sunday,
September 25, 2022, 8 a.m.–1 p.m.

LOCATION: Live-online

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

pcs.udel.edu/drones

7 REASONS TO ENROLL IN PROFESSIONAL DRONE PILOT: GROUND SCHOOL AND FAA PART 107 TEST PREP

By Paige Fitzgerald, UD PCS instructor

Paige Fitzgerald began flying drones in 2016, and she has shared her knowledge by teaching many sessions of the award-winning UD PCS Professional Drone Pilot: Ground School and FAA Part 107 Test Prep program. Drawing on her experience as both a drone pilot and an instructor, she has seven reasons why people should take her class.



1. Drones are fun

If you have already flown drones, you know how much fun it is. You'll never see somebody flying a drone who doesn't think it's fun to do. It's a blast.

2. People really like the class

I'm proud to say that we've had incredible feedback from our students who really like what we have done. Our students have a great time and come out of the class feeling really good about what they have learned.

3. Take the certification test with confidence

Probably the most important reason I can give you to take this class is that if you want to make money flying drones, you must have the FAA Part 107 remote pilot certificate. If you get paid to fly drones without the certification, you are doing it in violation of federal law.

4. Add a professional certification to your resume

Whether you are starting out your career or trying to change paths, it's always good to have a new professional certification. When you receive your drone certification, you can impress your future employers and make your job application stand out.

5. Add a source of income to your household

If you have been noticing people taking real estate pictures and getting hired for other small jobs here and there and are wondering how you can make some extra money flying drones, this is a good class for you. This is a fun way to get that extra source of income for your household.

6. Build your street cred and professional networks

Drones are everywhere, and it is clear who knows what they are talking about and who does not. If you can show that you know what you are talking about when you communicate with other drone pilots, you will build your networks and be taken seriously as a professional.

7. Learn from my mistakes

I can tell you as a person who started out with no experience whatsoever, I spent a lot of 2016 and 2017 making very stupid mistakes and very expensive mistakes. By telling you what not to do, I will save you some money before you invest it into buying equipment and running a business.

Education programs

Free Live-Online Information Session

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

**Wednesday, July 26
7–8 p.m.**

Instructional Design Certificate

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

CREDIT DEGREE | HYBRID-ONLINE

Master of Arts in Economics and Entrepreneurship for Educators

Hybrid/online graduate program preparing educators teaching economics, entrepreneurship and personal finance. See page 33.

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 33.

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 33.

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 33.

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 33.

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 and On-Demand Online Test Prep

The Praxis Core Math 5733 Live-Online and Reading and Writing 5713/5723 On-Demand Online Test Prep courses 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

NONCREDIT CERTIFICATE | ONLINE

NEW! Instructional Design Certificate

This online program is designed for anyone who wants to become an instructional designer. The hands-on, applied training method focuses on providing the opportunity to build out a portfolio of instructional design projects. Estimated time to complete the full three-course program is 10 months. Participants can take some or all of the courses based on their professional background and experience.

- **Foundations of Instructional Design** focuses on foundational knowledge for instructional designers, including major learning theory principles applicable to instructional systems design, analysis of learner needs and use of authoring tools.
- **Curriculum Design for eLearning** focuses on curriculum design, including alignment of learning objectives, practice and assessments, and the evaluation of eLearning modules.
- **Design and Developing eLearning** focuses on developing eLearning modules

and applying multimedia design principles, instructional design frameworks, project management for designers, and addressing feedback for continuous improvement.

The remaining two courses will be launched in 2023. Please visit pcs.udel.edu/instructional-design for more information.

WHO SHOULD PARTICIPATE?

- Individuals considering a career in instructional design

FOUNDATIONS OF INSTRUCTIONAL

DESIGN SCHEDULE: October 17–December 19, 2022

LOCATION: Online

PRICE: \$1,995

pcs.udel.edu/instructional-design

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 MACTE-accredited (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.

In addition, we are planning a series of professional development programs for teachers and schools. We are proud to be partnering with First State Montessori Academy and Sussex Montessori Charter School. The next teacher cohort launches summer 2023.

pcs.udel.edu/udmtr

PROGRAM TRAINS INNOVATIVE, CHILD-CENTERED EDUCATORS



According to the National Center for Montessori in the Public Sector (NCMPS), the number of public Montessori schools in the U.S. is at 500 and growing, as Montessori's progressive, child-centered approach is adopted in public, charter, magnet and district programs. The University of Delaware's Montessori Teacher Residency (UDMTR) program partners with NCMPS to support schools and districts in the region to initiate new Montessori programs in the public sector or strengthen existing programs by providing rigorous high-quality Montessori teacher preparation and school support.

The UDMTR program played a critical role in the 2020–21 launch of Sussex Montessori Charter School in Seaford, Delaware, with 10 of its new teachers receiving their training in the program's inaugural cohort focused on innovative, creative, child-centered Montessori learning communities with diverse student populations. "With the training provided by UDMTR, we were able to support bringing public Montessori education to Sussex County, Delaware," said program director Linda Zankowsky.

Currently launching its third cohort of teacher-residents this year, UDMTR's ongoing teacher cohorts include 16 enrolled teacher-residents from Sussex Montessori as well as eight from First State Montessori Academy in Wilmington.

Why is Montessori education unique?

Montessori schools fill a unique niche in the public sector, serving children in both rural and urban areas. Founded by scientist and educator Maria Montessori, hallmarks of the Montessori method include:

- **Commitment to equity** – Children's unique cultures are represented in the classroom environment, curriculum and activities.
- **Hands-on learning** – Children learn through observation and experimentation, engaging with objects, ideas and events to problem-solve and develop.
- **Individualized instruction** – Montessori's emphasis on personalized instruction supports each child's unique development and abilities while encouraging children to stretch and challenge themselves to explore new ideas and goals.
- **Teachers as guides** – In Montessori classrooms, teachers make instructional decisions focused on developing children's ability to learn and grow.
- **Classroom collaboration** – Collaborative relationships between teachers and children, children and children, and the school and families foster a sense of community to support each child.
- **Emphasis on the whole child** – The classroom environment is intentionally designed to allow children to develop socially, academically and physically.
- **Multi-age classrooms** – Children learning together in multi-age groups allow for the classroom community to thrive as children learn from each other and teachers.

Partnering to create strong Montessori school communities

The goal of UD's Montessori teacher program is to support a strong regional Montessori community with well-prepared Montessori teachers. Partnering with district and school leaders, UDMTR can also help support key aspects of developing and launching a Montessori program, including logistics of starting a Montessori program, preparing teachers and school leaders, partnering to secure grants and other funding sources.

For more information about UDMTR, visit pcs.udel.edu/udmtr.

PROGRAMS AT A GLANCE

SUBJECT	PROGRAM	DATES/TIME	LOCATION	PRICE	DELIVERY METHOD	FORMAT	PG. NO.
BUSINESS & IT	Advanced Social Media Marketing for Business	Sept. 6–Dec. 18	Online	\$2,495	Online	Certificate	14
	Business Analysis	Tues.–Wed., Sept. 20–21, Oct. 11–12, Nov. 8–9, Dec. 6–7 9 a.m.–4 p.m.	Live-online	\$995/module or \$3,380/certificate bundle	Live-online	Certificate	4
	Business Analytics Science	Classes start monthly	Online	\$1,999	Online	Certificate	4
	Business Essentials		Online		Online	Certificate	32
	Cybersecurity Fundamentals for Practitioners and Managers	Wed., Sept. 21–Nov. 2	Online	\$1,495	Live-online	Course	5
	Design Thinking Workshop	Tues.–Wed., Oct. 18–19, 9 a.m.–4 p.m.	Live-online	\$1,495	Live-online	Course	5
	Foundations of Digital Marketing	Classes start anytime	Online	\$495	Online	Course	5
	Foundations of R for Data Analysis	Mon., Sept. 26–Nov. 14, 6–9:15 p.m.	Wilmington	\$1,495	In-class	Certificate	8
	Fundamentals of Social Media Marketing	Classes start anytime	Online	\$495	Online	Certificate	13
	Graduate Certificate in Socially Responsible and Sustainable Apparel Business				Online	Certificate	32
	Graduate Certificate in Strategic Communication				Online	Certificate	32
	Microsoft® Excel Essentials	Tues., Sept. 6–Oct. 4, 6–9 p.m.	Live-online	\$495	Live-online	Course	8
	Microsoft® Excel Advanced Concepts	Thurs., Oct. 13–Nov. 10, 6–9 p.m.	Live-online	\$495	Live-online	Course	8
	Microsoft® Excel Advanced Reporting and Analytics	Wed., Nov. 16–Dec. 21, 6–9 p.m.	Live-online	\$495	Live-online	Course	8
	Master of Accounting Practice (MAP)				Online	Degree	32
	Master of Arts in Economics and Entrepreneurship for Educators (M.A.E.E.E.)				Hybrid-Online	Degree	33
	Master of Arts in Strategic Communication (M.A.)				Online	Degree	32
	Master of Business Administration (MBA)				Online	Degree	32
	Master of Public Administration (MPA)				Online	Degree	33
	Master of Science in Applied Statistics (M.S.)				Online	Degree	32
	Master of Science in International Business (M.S.)				Online	Degree	30
	Nonprofit Leadership	Thurs., Sept. 1–Dec. 15, 8:30 a.m.–4:30 p.m.	Wilmington	\$2,595	Hybrid	Certificate	9
	Predictive Analytics and Data Mining	Mon., Sept. 12–Dec. 14, 6–9:15 p.m.	Wilmington	\$2,895	In-class	Certificate	9
	Project Management	Tues., Oct. 4–Dec. 13, 6–9:30 p.m.	Live-online	\$2,595	Live-online	Certificate	9
	3-Day Project Management Boot Camp	Aug. 9–11, 8 a.m.–5 p.m.	Lewes	\$1,595	In-class	Certificate	12
	Sales Development Science	Classes start monthly	Online	\$1,199	Online	Certificate	12
	Sales Operations Science	Classes start monthly	Online	\$1,199	Online	Certificate	13
	Self-Paced Programs	Classes start anytime	Online	Various	Online	Course	14
DRONE	Drone: Ground School & FAA Part 107 Test Prep	Sat., Sept. 17, Sun., Sept. 18, Sun., Sept. 25, 8 a.m.–1 p.m.	Live-online	\$395	Live-online	Course	15
EDUCATION	Instructional Design	Oct. 17–Dec. 19	Online	\$1,995	Online	Certificate	16
	M.A. in Economics & Entrepreneurship for Educators				Hybrid-online	Degree	33
	Master of Education in Teacher Leadership				Online	Degree	33
	Master of Education in Educational Technology (M.Ed.)				Online	Degree	33
	Master of Education in Exceptional Children and Youth (M.Ed.)				Online	Degree	33

EDUCATION	Master of Education in Literacy (M.Ed.)				Online	Degree	33
	Montessori Teacher Residency				Hybrid and In-Classroom	Certificate	17
	Alternative Routes to Teacher Certification (ARTC)				In-class	Course	16
	Praxis: Core Math or Reading & Writing	Visit pcs.udel.edu/praxis-test-prep for details.			Live-online	Course	33
ENGINEERING & SCIENCE	Graduate Certificate in Applied Bioinformatics				Online	Certificate	33
	Graduate Certificate in Biomedical Informatics and Data Science				Online	Certificate	34
	Graduate Certificate in Composites Manufacturing and Engineering				Online	Certificate	32
	Graduate Certificate in Cybersecurity				Online	Certificate	34
	Graduate Certificate in Minerals, Materials and Society				Online	Certificate	34
	M.S. in Cybersecurity				Online	Degree	34
	M.S. in Electrical and Computer Engineering				Online	Degree	34
	M.S. in Mechanical Engineering (MSME)				Online	Degree	34
	Progressive Composite Damage Modeling in LS-DYNA	July 18, 9 a.m.–4 p.m. Nov. 14, 9 a.m. –4 p.m.		\$695	Online	Webinar	20
	Railroad Engineering Certificate				Online	Certificate	34
FOOD/HOSPITALITY	Foundations of Brewing Science and Brewery Operations	Wed., Sept. 14–Nov. 16, 7–9 p.m.	\$995	Live-online	Certificate	21	
HEALTHCARE & HEALTH SCIENCES	Advanced Telehealth Coordinator Online	Sept. 12-Dec. 19	Online	\$1,495	Online	Certificate	23
	Clinical Trials Management	Sept. 12-Dec. 12	Online	\$2,125	Online	Certificate	23
	Continuing Dental Education Symposium	Mon.–Fri., July 18–22, 8 a.m.–noon	Rehoboth Beach	See page 24.	On-site	Conference	24
	Dietetic Internship				Online	Certificate	35
	Doctor of Nursing Practice				Online	Degree	35
	Eastern Shore Medical Symposium	Mon.–Fri., 19-23, 2023, 8 a.m.–12:30 p.m.	Rehoboth Beach	See page 24.	On-site	Conference	24
	Molecular Diagnostics				Hybrid-online	Certificate	35
	RN Refresher	Starts Aug. 31	Online	\$1,250	Online	Course	24
	RN to BSN				Online	Degree	31
LAW	Paralegal Certificate	Mon./Wed., Sept. 7, 2022–July 26, 2023, 6–9 p.m.	Wilmington	\$3,995	In-classroom	Certificate	27
	LSAT Prep	Multiple live-online offerings See pcs.udel.edu/lsat-test-prep	Live-online	\$995	Live-online	Course	30
SAFETY	Certified Occupational Safety Specialist (COSS)	Mon.–Fri., Aug. 15–19, 8 a.m.–5 p.m. Mon.-Fri., Nov. 14-18, 8 a.m.-5 p.m.	Visit pcs.udel.edu/safety for details	\$2,649	In-classroom	Course	29
TEST PREP	ACT Prep	Multiple live-online offerings	Online	\$475	Online	Course	30
	GRE Prep	Multiple live-online offerings	Online	\$895	Online	Course	30
	GMAT Prep	Multiple live-online offerings	Online	\$895	Online	Course	30
	LSAT Prep	Multiple live-online offerings	Online	\$995	Online	Course	30
	SAT Prep	Multiple live-online offerings	Online	\$475	Online	Course	30

Engineering and science programs

CREDIT CERTIFICATE | ONLINE

Composites Manufacturing and Engineering Certificate

Intended to provide the practicing engineer a strong foundation in the processing-structure-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 33.

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 33.

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 34.

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 34.

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 34.

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 34.

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 34.

NONCREDIT SHORT COURSE | ONLINE

Progressive Composite Damage Modeling in LS-DYNA

Offered by UD's Center for Composite Materials, this course is relevant for engineering and science professionals who wish to expand their knowledge of the mechanics of composite materials, including theory and practice of the MAT162 composite damage model with applications to low and intermediate impact velocities, understanding the LS-DYNA programming parameters related to impact-contact, damage evolution, perforation and penetration of thin- and thick-section composites.

SCHEDULE: July 18, 2022 and November 14, 2022, 9 a.m.–4 p.m.

LOCATION: Online webinar

PRICE: \$695, includes USB flash drive with course materials

ccm.udel.edu/software/mat162/mat162_workshop

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 34.

Food and hospitality program

NONCREDIT CERTIFICATE | LIVE-ONLINE

NEW! Foundations of Brewing Science and Brewery Operations

According to the Brewers Association, the record high of 9,118 craft breweries in the United States in 2021 represented a 60% increase from 2016 when there were just 5,713 craft breweries in the country. With the surge of craft breweries showing no signs of slowing down, trained brewers are in high demand.

This course is designed to give participants looking to gain entry into the rapidly growing beer brewing industry, or transition roles within it, practical knowledge and hands-on experience to equip them with an upper hand when pursuing brewery jobs. In addition, it provides a scientific, yet fun-filled, opportunity for homebrewing hobbyists to elevate their brewing knowledge to the professional level.

Topics include beer styles and guidelines, raw materials (hops, malted barley, yeast, water), hot-side and cold-side brewing operations (with a focus on cellar operations and entry-level work), brewery safety and chemical use, brewing equipment (brewhouse, fermenters, filters), packaging, and quality.

WHO SHOULD PARTICIPATE?

- Anyone looking to make brewing a career
- Anyone looking to transition roles in a brewery
- Anyone looking to take their hobby/career to the next level

SCHEDULE: Wednesdays, September 14–November 16, 7–9 p.m.

LOCATION: Live-online with optional in-person session and beer tasting October 15, 10 a.m.–1 p.m., at 1937 Brewing Company, 777 Delaware Park Blvd., Wilmington, Del.

PRICE: \$995 launch special, \$1495 thereafter.

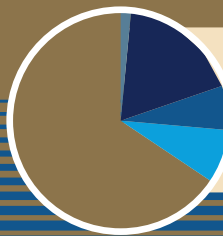
Participants must be at least 21 years old.

pcs.udel.edu/brewing

CRAFT BEER SALES AND PRODUCTION IN THE U.S.

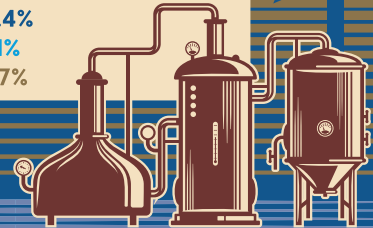
With a sales volume growth of nearly 8% in 2021, craft brewers' share of the U.S. beer market rose to 13.1%. Craft beer now accounts for just under 27% of the U.S. beer market.

2021 U.S. Beer Production Volume



Contract Brewing Companies 1.4%
Microbreweries 18.4%
Brewpubs 6.4%
Taprooms 8.1%
Regionals 65.7%

CRAFT 7.9%



2021 U.S. Beer Sales Volume

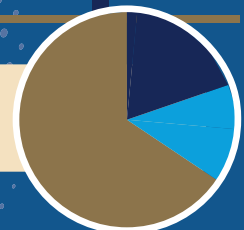
OVERALL BEER 1.0%

CRAFT 7.9%

IMPORT BEER 8.5%



Other Domestic 65.9% Share
Import 21.0% Share
Craft 13.1% Share



OVERALL BEER MARKET \$100.2 BILLION

CRAFT BEER MARKET \$26.8 BILLION

Source: <https://www.brewersassociation.org/statistics-and-data/national-beer-stats/>



CLINICAL TRIALS CERTIFICATE PROGRAM FOCUSES ON HIGH-PROFILE FIELD

Making an impact in clinical research

By Nora Zelluk

The clinical research field has taken center stage during the coronavirus pandemic, with daily news coverage of infectious disease research and vaccine development.

UD's long-running Clinical Trials Management Certificate—now in its 15th year—has seen dramatically increased enrollment in this online certificate program focused on the key competencies involved in the new product development process.

“Media attention made clinical trials a household word, motivating many professionals looking for new avenues to use their skills,” said Michele Welch, program director and lead faculty for UD's program.

“‘I want something new,’ and ‘I want to contribute more, in a different way’ is what I'm hearing from recent and current students enrolled in our program,” added Welch.

Previously offered twice yearly, an annual third cohort of this program has been added since the start of the pandemic.

Career opportunities in the clinical research field are many and varied, with employment settings ranging from pharmaceutical and biotechnology, to medical device companies, contract research organizations, hospitals, educational institutions, independent contractors and more.

Many professionals with a strong science- or healthcare-related background—such as nurses, pharmacists, medical technologists, physicians and more—are well-positioned to join the clinical research field.

“Clinical research is a field for individuals who have a passion for seeing the impact their efforts make to humankind.”

—Michele Welch

“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,” added Welch, a clinical research professional with over 20 years' experience in global pharmaceutical drug development.

UD certificate program

UD's Clinical Trials Management Certificate program is aimed at healthcare professionals who want to learn more about the clinical research and new product development process in today's environment, which includes device, biologicals and drug research. The curriculum aligns with the Association of Clinical Research Professionals certification exam. With start dates in February, May and September, this online 14-week program covers the logistics of site management, including startup, maintenance, and closeout, with the corresponding collection and management of data, as well as regulatory, privacy and compliance issues.



UD students and UD alumni are eligible for a discount when enrolling in this program. Discounts are also available for military personnel and veterans, and groups of two or more individuals from one business or organization. For more information including a detailed curriculum, or to register, visit pcs.udel.edu/clinical-trials or write to continuing-ed@udel.edu.

Healthcare/Health sciences programs

Free Live-Online Information Session

Join us for the following live-online information sessions to learn more about fall 2022 professional development programs, speak with instructors and ask questions about the programs you're interested in.

Tuesday, July 26
7–8 p.m.

Clinical Trials Management
Telehealth Coordinator
RN Refresher

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

NONCREDIT CERTIFICATE | ONLINE

Advanced Telehealth Coordinator Online Certificate

Leverage 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 15-week program provides the foundations of telehealth for the delivery of healthcare.

WHO SHOULD PARTICIPATE?

Clinicians and administrators from a wide variety of healthcare disciplines 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: September 12–December 19, 2022
(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: September 12–December 12, 2022
(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



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 NDX Dodd and the University of Delaware's Division of Professional and Continuing Studies.

SCHEDULE: Monday–Friday, July 18–22, 2022, 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

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. Recent topics include COVID-19 policies and pathophysiology, atrial fibrillation, hypertension guidelines, cancer screening and prevention, 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 healthcare professionals.

SCHEDULE: Monday–Friday, June 19–23, 2023, 8 a.m.–12:30 p.m. For details, visit pcs.udel.edu/esms

LOCATION: Rehoboth Beach Convention Center, Rehoboth Beach, Del.

PRICE: Registration includes electronically provided course materials, online certificates of attendance and daily continental breakfast. Participants assume responsibility for lodging and all other meals. Physicians and faculty: \$795; retired physicians: \$755; previous participant bringing a first-time participant: \$695; nurses (professional, practitioner, case manager) and physician assistants: \$695; residents: \$520.

pcs.udel.edu/esms

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 pharmaceuticals. See page 35.

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 August 31, 2022. Clinical component immediately follows and must be completed by March 1, 2023.

PRICE: \$1,250 program fee (early registration discount through August 1, 2022). 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 31.



UD PCS EXPANDS CAREER RESOURCES

Career coaching | Resume review | Mock interviewing
UD career/networking events | Internship and job database

The University of Delaware's Division of Professional and Continuing Studies (UD PCS) recently began offering an expanded suite of career-focused resources to UD PCS certificate program students.

Participants enrolled in designated noncredit professional development programs now have access to resources and tools like resume review, career path coaching and mock interviewing sessions as well as to selected career resources through the UD Career Center.

"This has been a recurring request from both prospective and current students as well as UD PCS graduates and faculty," said Vic Wang, director of UD PCS noncredit professional programs. "They've asked us about extra career resources to help navigate a career change, optimize their job search and maximize potential opportunities that may come with adding a new credential to their resumes," added Wang.

"It's an exciting development," said Debra Fields, the new program manager for **UD PCS career services**. "In addition to directly providing some great career services to our certificate program students, we've also collaborated with the UD Career Center to enable students' access to important resources that historically have been available primarily to matriculated UD students and alumni."

With a background in human services counseling and executive leadership, Fields works with certificate program students to help assess their career goals and career paths, providing one-on-one coaching and support while they're enrolled in the UD PCS program, as well as for a follow-up period after program completion.

Students will also be able to attend UD career and networking events – both in-person and virtual – as well as participate in the Handshake network, a database of thousands of internships and jobs posted specifically for UD students and alumni.

In addition to the resources and support offered through the new UD PCS career services initiative, students can take advantage of free academic advisement and career exploration provided by the UD PCS ACCESS Center. ACCESS Center services include academic advisement, educational planning and career exploration, all offered at no cost to prospective and existing continuing education students, as well as the larger community.

For more details, including a complete list of UD PCS career services eligible programs, visit pcs.udel.edu/career-services.

Power Up Your Career Online Industry Insights

This fall, UD's Division of Professional and Continuing Studies (UD PCS) is again offering its Power Up Your Career series free of charge, with a new focus on insights and networking opportunities with industry insiders.

The upcoming series will feature interactive sessions with experts and leaders from three industries, each night's session focused on one of the following: health-care, legal and fintech (financial technology). Panelists include recruiters, executives and other experts who will share updates and current events from their fields, as well as participate in interactive Q&A with attendees.

Power Up Your Career seminars have been a regular UD PCS offering for a decade. Since the pandemic, the series has been offered at no cost with the goal of offering relevant career tips to members of our community facing professional and personal challenges, receiving over a thousand registrations since 2020.

The online sessions meet via Zoom videoconferencing; schedule to be determined. Participants are invited to register for the entire series or individual sessions. Registration is free, but RSVPs are required.

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

POWER UP YOUR CAREER INDUSTRY INSIGHTS

HEALTHCARE
LEGAL • FINTECH

Join us for interactive
sessions with industry
insiders, executives
and recruiters.

pcs.udel.edu/power-up



UNIVERSITY OF DELAWARE
**PROFESSIONAL &
CONTINUING STUDIES**



UD PCS PROVIDES DATA ANALYST TRAINING OPTIONS

Two programs teach in-demand skills

By Adam S. Kamras

While data is easier than ever to collect and store, knowing what to do with it and how to analyze it is a challenge, especially for those without the proper training. From boosting customer acquisition and retention, managing risk, and identifying the source of product performance problems, to predicting competitive bond-buying bids, putting together a winning baseball roster, and countless other functions, skilled professionals possessing the unique combination of computational, analytical and communication proficiencies necessary to discover data-supported solutions to important business questions are invaluable to an organization's success.

Employed in numerous industries, a variety of educational paths can be taken to hone one's data analyst skills. Two of these routes are provided by UD PCS via its Predictive Analytics and Data Mining Certificate and Foundations of R for Data Analysis Certificate programs. Depending on a person's interests and background, either course—or both—could be a good fit.

Predicting outputs as a function of inputs

Taught by a pair of retired DuPont employees, Steven P. Bailey and Aaron J. Owens, Predictive Analytics and Data Mining addresses how to define the goals of a project, identify or collect appropriate data, analyze the data to determine a solution, and communicate the results effectively to others.

"The more data you have, the more you are going to get a lot of statistically significant information that may not be of practical importance or good at predicting the future," said Bailey. "If suitably organized into a spreadsheet or a worksheet, we can use a number of techniques all focused on coming up with models that predict one or more outputs as a function of our inputs."

Whereas predictive analytics refers to the use of statistics and modeling techniques to make predictions about future outcomes

"The Predictive Analytics and Data Mining course teaches the methods, and Foundations of R for Data Analysis teaches about a programming language that can be used to perform the methods."

—Ryan Harrington

and performance, data mining is a process used to turn raw data into useful information.

"The whole purpose of what we're trying to do is get a model that is exactly the appropriate complexity for the data set that's sitting there," said Owens.

JMP Pro is the primary analytics software used throughout the Predictive Analytics and Data Mining Certificate program. The menu-driven commercial software package does not require programming skills and allows users to perform predictive modeling and cross-validation techniques as well as other actions.

Perform data analysis with R

Rather than using a software tool like JMP Pro—or in addition to it—some data analysts employ programming languages to perform their tasks. Foundations of R for Data Analysis instructor Ryan Harrington's programming vehicle of choice is R, a free and open-source statistical language that enables users to extract, clean, visualize and model data.

Using R to support learning the basics for an aspiring data analyst or a data scientist while focusing on the mechanics of programming with it and not on statistical modeling techniques, Harrington, the director of strategy and operations, Delaware Data Innovation Lab at Tech Impact, said he is teaching a data analytics course supported by computer programming rather than what he would call a true programming course. Though programming is the means to the end, his goal is to train the students to be capable data scientists or data analysts.

"I'm not just teaching the language of R; I'm teaching the mindset for how a data analyst would go about doing their job," said Harrington. "The Predictive Analytics and Data Mining course teaches the methods, and Foundations of R for Data Analysis teaches about a programming language that can be used to perform the methods."

Law program

Free Live-Online Information Session

Join us for a live-online information session to learn more about the fall 2022 Paralegal Certificate program, speak with instructors and have your questions answered.

Tuesday, July 26
7–8 p.m.

Paralegal Certificate

**Meeting information
sent upon registration**

pcs.udel.edu/info-session

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 42 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.

Employers are waiting for you!

- NEW! Partnership with Delaware Department of Justice.
- NEW! Internship with Morris, Nichols, Arsht & Tunnell LLP.
- Frequent outreach from area firms seeking paralegals from our program.
- 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: September 7, 2022–
July 26, 2023, Mondays/Wednesdays,
6–9 p.m.

LOCATION: Arsht Hall, 2700 Pennsylvania
Ave., Wilmington, Del.

PRICE: \$3,995, 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



PARTNERSHIP DISCOUNTS

Thanks to our partnerships with local legal organizations, 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.



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 Continuing Education Non-Degree (CEND) students are required to schedule an appointment to meet with an ACCESS Center academic advisor (see page 2). ACCESS advisors are available to answer questions, offer guidance and assistance with course selection and registration, and provide required forms. 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

Through established partnerships with participating high schools, academically qualified juniors and seniors can simultaneously earn high school and college credits by taking designated University of Delaware courses.

Students can:

- Learn from expert faculty at one of the nation's top research universities.
- Get a head start on college while saving time and money.
- 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 Program. Students may enroll in one or more of the designated online courses 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

Academically qualified juniors and seniors from participating Delaware public, charter and private high schools may take UD general education courses offered through the UD Early College Credit Program at no cost, simultaneously earning both high school and college credit. Students may take a maximum of two courses per semester—four courses per year. Upon successful completion of courses, students are awarded college credit. For those students who are admitted to UD, these credits will decrease the time to completion and cost of a UD bachelor's

degree. Students can also apply UD credit toward degrees at other universities and colleges, pending approval by the receiving institutions.

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

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 in person and live-online. See page 28 for details.

pcs.udel.edu/test-prep

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 30.

pcs.udel.edu/sat-test-prep

SAT Live-Online 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 30.

pcs.udel.edu/sat-test-prep

Safety programs

Free Live-Online Information Session

Join us for the following live-online information session to learn more about fall 2022 professional development programs, speak with instructors and ask questions about the programs you're interested in.

Wednesday, July 26
7–8 p.m.

Occupational Safety (COSS)

**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 | IN-CLASS

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 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: In person: August 15–19 or November 14–18, 2022, 8 a.m.–5 p.m.

LOCATION: 501 S. College Ave., Newark, Del. (refer to the website for location details)

PRICE: \$2,649 (in-person) **UD alumni, military and GBCA discount available.***

pcs.udel.edu/coss

*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.



Test prep programs

TEST PREP FREE STRATEGY SESSIONS

ACT/SAT Strategy Workshop

(LIVE-ONLINE)

9–10 p.m.

Thursday, September 8

Thursday, September 22

Thursday, October 6

GMAT Strategy Workshop

(LIVE-ONLINE)

9–10 p.m.

Tuesday, August 16

Wednesday, October 5

GRE Strategy Workshop

(LIVE-ONLINE)

9–10 p.m.

Wednesday, July 6

Thursday, July 28

Tuesday, August 30

Wednesday, September 28

Thursday, October 27

LSAT Strategy Workshop

(LIVE-ONLINE)

9–10 p.m.

Wednesday, August 10

Tuesday, September 13

Wednesday, October 5

NONCREDIT COURSE | LIVE-ONLINE AND IN-CLASS

College Test Preparation Courses

Live-online and in-class 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 guide, 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, Delaware residents.

LOCATION: Courses offered live-online and in person. 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

OTHER EXAM PREP OFFERINGS

Praxis

See page 16 for more information.

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

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 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. 38 nationally among top public universities.
- *Kiplinger's*, *Forbes*, *Princeton Review* and *MONEY* rank UD among “best value” schools.
- UD is named among the Top Veteran-Friendly Schools by *U.S. Veterans Magazine*.

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. If you have previous college credit, this may be transferable into the program, and you can 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

<https://www.udel.edu/academics/colleges/chs/departments/son/undergraduate-programs/rn-bsn/>

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 cutting-edge labor and environmental issues in the global textiles and fashion apparel industry. Coursework is grounded on the principles of the United Nations (UN) Global Compact. The program provides the foundation needed to manage international production, sourcing, supply chain, product development and buying in ways that are socially responsible and sustainable.

CONTACT: 302-831-8713
shenglu@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

Graduate Certificate in Strategic Communication

This certificate provides professional education and training at the graduate level, focusing on the basic principles of strategic communication; the theoretical background necessary to understand how to create effective public relations, social media and strategic communication campaigns; and the methodological skills required to test and understand the effectiveness of campaigns.

CONTACT: taralynn@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. 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/masters-programs/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 grounding 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 Elementary Special Education

and Secondary Special Education. 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 requirements for Delaware certification as a Teacher of Exceptional Children Grades K-12.

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 growing fields like biomedicine, pharmaceuticals, healthcare, agriculture 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 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 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 gain 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 processing-structure-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-composites-manufacturing-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, hands-on practice evaluating and securing a 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/cybersecurity-certificate

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-enhancing 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 third-generation 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, digital 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
online.ece.udel.edu/masters-in-cybersecurity-online/

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
online.ece.udel.edu/msece-online/

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 world-class, awarded faculty who teach in the full-time, campus-based program.

CONTACT: me-gradinfo@udel.edu
me.udel.edu/academics/graduate/msme-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/academics/colleges/chs/departments/bhan/graduate-programs/dietetic-internship/

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 evidence-based interventions, quality improvement strategies and health policy changes that address patient safety, promote patient-centered care and reduce health disparities among diverse groups. Five concentrations are available in a hybrid-online and on-campus format: adult-gerontology nurse practitioner, adult-gerontology acute care nurse practitioner, family nurse practitioner, pediatric 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 pharmaceuticals 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-of-public-administration

NONCREDIT PROFESSIONAL DEVELOPMENT AND CERTIFICATE PROGRAMS

BUSINESS

Fundamentals of Social Media Marketing Certificate

Introduces 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. See page 14.

Advanced Social Media Marketing for Business Certificate

Teaches students with fundamental to midlevel social media marketing skills to effectively and successfully leverage the power of social media to support organizational goals. See page 13.

NURSING/HEALTHCARE

Advanced Telehealth Coordinator

Provides the foundations of telehealth for participants interested in utilizing telehealth for the delivery of healthcare. See page 23.

Clinical Trials Management

Key competencies necessary for understanding and conducting clinical trials and new product development. See page 23.

RN Refresher

Online didactic course for nurses seeking to refresh their nursing knowledge and update licensure status; clinical component coordinated locally. See page 24.

Osher Lifelong Learning Institute

Are there topics you've always been curious about but haven't had the opportunity to explore? Join us at OLLI for engaging classes, thoughtful discussions and fun 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 fall, our OLLI classrooms will bring together lifelong learners from across Delaware and immediate surroundings to experience the benefits of lifelong learning and connect with a vibrant community of adult learners at the OLLI Wilmington and OLLI Kent/Sussex programs. Classes are offered on a wide array of subjects at locations across Delaware and online through the Zoom videoconferencing software. All classes are taught by experienced OLLI instructors from Delaware and the region.

For more details, visit olli.udel.edu.

**Fall registration
starts August 3**



OVER 300 COURSES OFFERED ONLINE OR IN PERSON THIS FALL!



OLLI Online

- African American Art History
- Watercolor, Photography, Portrait Drawing, more
- Genealogy Research
- Lincoln Assassination: Fact & Fiction
- Electric Vehicle Revolution
- French, German, Italian, Spanish
- Mysteries of Living and Dying
- Cars of the 50s and 60s
- Elder Law
- Investment Study Group
- Dementia Care Partners Support Group

OLLI Kent/Sussex in person

- Stained Glass
- Greatest Broadway Songs
- 1970s Air Traffic Control
- Hemingway Short Stories
- Pacific Island Dance

OLLI Wilmington in person

- Inside Our National Parks
- Jane Austen: Satiric and Serious
- Yoga, T'ai Chi, Hiking
- Genius of Richard Feynman
- Insurance for Seniors
- ...and many more!

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 who want to pursue a degree. 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**



TOP 10 REASONS TO JOIN OLLI



Join us for fun and learning at UD's Osher Lifelong Learning Institute (OLLI) program for adults aged 50-plus! Read on for the top 10 things our members love about OLLI.

1. Learning for the joy of learning

As a learning cooperative, OLLI offers a fun, informal learning environment with a mix of both academic and entertaining subjects, but with none of the stressful ingredients like tests or grades.

"I never thought I could love school this much! None of my former teachers would be likely to describe me as a highly motivated student. They should see me now!" –Joe B.

2. Being part of a vibrant community

Most of our members love the OLLI community as much as the courses themselves, maybe even more.

"OLLI is my 'rainbow connection' to learning and good times." –Judy D.

"OLLI is the main reason I haven't moved in with my children. It's a lifeline to people and learning." –Rose G.

3. Rediscovering joy in music

With rock band, flute choir, orchestra, brass ensemble, guitar, chorus, singalongs and more, OLLI's varied music offerings are hugely popular. Some learn to play musical instruments for the first time ever, and others rediscover old talents.

"I'm relearning to play my trumpet after it sat in my attic for 50 years!" –Steve J.

4. Exploring creativity

While there are plenty of academic subjects to choose from, OLLI's art and handcrafting subjects are a favorite.

"I finally have time to enjoy my creativity—I have taken classes in pottery, watercolors and basket weaving. I just love it!" –Karen S.

5. Finding new passions!

With hundreds of choices each semester, there's literally an opportunity to learn something new every day.

"I've done so many things here: studied history, played in bands, sung madrigals, taken yoga and t'ai chi." –Ruth F.

6. Staying physically active

Looking for ways to stay physically active and hang out with friends? Take your pick from OLLI's hiking and walking groups, English country dance or Pacific Island dance, yoga and more.

"There are lots of great classes at OLLI, but folk dance is my absolute favorite." –Gail H.

7. Sharing your knowledge as an instructor

OLLI's volunteer instructors enthusiastically share their lifetimes of knowledge and passion, whether acquired through their professional and academic backgrounds or through their hobbies or avocations.

"I love being an instructor at OLLI. I challenge myself to learn about a new subject and then to teach it to others." –Rita M.

8. Making new friendships

Camaraderie and friendships are driving forces behind OLLI's success.

"One of the main reasons I like coming to OLLI is the camaraderie." –Jeanne H.

"We moved to the area two years ago and it's been a great experience to meet new people." –Martin C.

9. Benefiting from UD resources

As part of a University of Delaware program, members can take advantage of many UD benefits like a free UD email and Zoom account, limited UD course auditing, UD library privileges and more.

"I never thought that this late in life I'd be enjoying student discounts for newspaper subscriptions and online purchasing. Thanks, OLLI!" –Nick S.

10. Having fun!

And, just in case we didn't say it enough, OLLI provides a fun way for members to learn from and interact with each other.

"What do I love about OLLI? The friendly people, many of whom have become dear friends, the interesting classes, and [the] fun events, which lead to even more fun events." –Carol W.

"OLLI is fun. You socialize, you learn and you stay current in today's changing world." –Joan M.

WE KNOW YOU'LL LOVE OLLI – GUARANTEED!

How sure are we that you'll love OLLI, too? Join us this fall, and if you're not convinced in two weeks, we'll completely refund your fall 2022 payment, no questions asked. **Details at olli.udel.edu.**



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