## Chemistry, B.S. Forensic Chemistry, B.S. Medical Laboratory Science, B.S.





**Alumni Profile** 

Aleks Pisarenko, Ph.D. Trussell Technologies

Aleksey Pisarenko has a B.S. in Chemistry from **York College of PA** and Ph.D. in Chemistry from Miami University. Dr. Pisarenko is a leader in water and wastewater treatment, conducting research on emerging water contaminants and development of mitigation strategies. He has co-authored 16 publications and given over 30

presentations. Dr. Pisarenko has conducted pilot-scale studies in advanced wastewater treatment, such as: membrane bioreactor (MBR); advanced oxidation, including  $O_3/H_2O_2$ ,  $UV/H_2O_2$ ; and membrane filtration systems, including microfiltration (MF), ultrafiltration (UF), and reverse osmosis (RO). While working at Southern Nevada Water Authority, Dr. Pisarenko investigated the effects of oxidation on the effluent organic matter (EfOM) to minimize organic fouling of RO membranes and evaluated the impacts of various technologies on trace organic and inorganic contaminant mitigation in water reuse applications. His current work involves investigating the chemistry of NDMA and perfluorochemical (PFC) formation in wastewater during ozonation.

## **Employment Record** - Here is a partial list of companies who have hired our recent graduates:

Accutest **MRG** Laboratories Siemens Healthcare Envirite Adhesives Research Geisinger Medical Center **NMS Labs** SiGNa Chemistry Air Products **Gilead Sciences NYC Police Department** Starbucks **AMZ Manufacturing** GlaxoSmithKline Takeda Pharmaceutical Thermo Fisher Ankom Technology Harley-Davidson **Particle Sciences BAE Systems** Hershey Medical Center Pfizer **Trussell Technologies BASF Corporation** Johns Hopkins Hospital Polytek **UPM Pharmaceuticals** PPG Johnson and Johnson **Bimax Chemicals US Army Bristol-Myers Squibb Eurofins Lancaster Labs Proctor and Gamble** Villanova University **Champions Oncology** McCormick Spice **Quest Diagnostics** Wellspan Health Church & Dwight Middlebury College Ross Technology Wilbur Chocolate City of Hope Morristown Hospital York College of PA Sciex **COIM USA** York Laboratories MPI Research **Seldon Technologies** 

## Graduate Programs - Here is a partial list of graduate schools who have accepted our recent graduates:

University of Buffalo Dickinson College Miami University University of Rochester **Drexel University** Penn State University University of the Sciences University of Maryland Fairleigh Dickinson University Syracuse University University of Utah University of Vermont George Mason University **Temple University** University of Alabama Vanderbilt University George Washington U. Texas A&M University University of Washington Villanova University

## YORK COLLEGE OF PENNSYLVANIA Chemistry Program

Our courses expose students to the most up-to-date, practical techniques which prepare them for advanced studies or employment. They spend significant hands-on time with instruments.

major instrumentation acquired by the chemistry program				
Supercritical Fluid Extractor	\$50K		LC-MS	\$60K
UV/VIS Spectrophotometer	\$20K		Chiral-IR	\$120K
GC/MS/MS	\$100K		UV/VIS	\$60K
FT-IR	\$20K		Atomic Absorption	\$75K
FT-NMR	\$200K		X-Ray Fluorescence	\$100K
Fluorescence	\$30K		Capillary Zone	\$70K
Spectroscopy			Electrophoresis	
Ion Chromatograph	\$35K		TGA/DSC	\$50K
ICP-AES	\$80K		Parr Calorimeter	\$10K
Atomic Force Microscopy	\$40K		Scanning Probe Microscopy	\$50K
Raman Spectroscopy	\$60K		SFC	\$80K
FTIR Microscopy	\$70K		GC/MS	\$40K

Our students are encouraged to participate in independent study as soon as they arrive on campus. Chemistry majors are required (Forensic Chemistry majors may choose) to partner with a faculty member their senior year and work on meaningful research. Most will publish their findings at the national meeting of the American Chemical Society.

Titles of papers presented by YCP students at the March 2016 meeting of the American Chemical Society, San Diego, CA			
Determination of illicit drug metabolites in wastewater by liquid chromatography mass			
spectroscopy			
Heavy metal content analysis of wines produced in the U.S. using inductively coupled			
plasma-optical emission spectroscopy			
Detection of methamphetamines in medium and low velocity bloodstain patterns			
Comparative perspectives of France and the US in climate change negotiations			
Predictive modeling of the UV-VIS spectra for a series of short-chained polyenes			
Crosslinking of the antibody anti-human IL 13R alpha 2 peptide IgY to FITC via PDPH			
Determination of the effect of dissolved oxygen on the rate of oxidation presented by			
trans-2-nonenal in beer			