

**Villanova University Undergraduate Research Fellows(VURF), 2011-2012**

<b>Name</b>	<b>Major</b>	<b>Mentor</b>	<b>Project Title</b>
William Albert	Engineering	Gang Feng	A Comprehensive Study of the Mechanics of Gold Nanoparticle Indentation
Emily Battinelli	Engineering	Rosalind Wynne	Microstructured Optical Fiber for Cellular Temperature Sensing
Thomas Belatti	Engineering	C. Nataraj	Experimental Validation of Nonlinear Tracking Control of a UAV
Blake Campbell	Engineering	Aleksandra Radlinska	Pervious Concrete Pavement for Sustainable Stormwater Management
Ian Dardani	Engineering	Gerard Jones	Validation of Optimization Algorithm for Cost Minimization of Multiple-Pipe, Gravity-Driven Water Networks
Jessica Deffler	Biology	Robert Curry	Personality in Carolina chickadees
Allison Eng	Environmental Science	Brian Chaplin	Reactive Electrochemical Membranes: Organic Fouling
Daniel Fritch	Engineering	Jens Karlsson	Using Microdroplets to Model Nonequilibrium Freezing in Cryopreserved Cells
Ellie Garbade	Biology	Angela DiBenedetto	Functional analysis of Brd2 in developing zebrafish oocytes and embryos
Atish Gupta	Engineering	Ani Ural	Influence Of Collagen Fibrils And Sacrificial Bonds On Bone Fracture Behavior
Thomas Hoffman	Engineering	Brian Chaplin	Optimizing Reactive Electrochemical Membrane Performance
Kathryn Johnston	Chemistry	Deanna Zubris	Studies on the Structure of a Class of Organic Compounds
Brian Kirk	Astronomy & Astrophysics	Andrej Prsa	High Definition Results from Modeling Binary HD 281159
Ellen Knapp	Engineering	Justinus Satrio	Understanding the Effect of Different Pyrolysis
Arianna Kuhn	Biology	Todd Jackman	Phylogenetic Relationships of South African flat geckos within the genus <i>Afroedura</i> using mitochondrial and nuclear loci
Jackeline Moreno	Astronomy & Astrophysics	Edward Sion	Evolution, Accretion Physics and Thermonuclear Outbursts of Symbiotic Stars
Caitlin Murphy	Biology	Louise Russo	Assessment of tissue specific inflammatory responses to 17beta-estradiol using laser capture microdissection and subsequent analysis of changes in mRNA expression of cytokines and chemokines in the immature rat uterus
Carl Ober	Humanities	Jerusha Conner	Students as Co-Reformers: A Comparative Study of both "Insider" and "Outsider" Models of Student Voice

Michael Peel	Biology	Dennis Wykoff	Transcription Factor in PHO Pathway of <i>S. pombe</i>
Andrew Quinn	Biology	Metin Duran	Clean Energy: Hydrogen Gas (and Ethanol) Production by Bacterial Digestion of Wastewater by <i>Caldicellulosiruptor bescii</i>
Madeline Rotella	Chemistry	Anthony Lagalante	X-Ray Fluorescence Analysis for Heavy Metal Exposure Monitoring
Ellen Salmi	French and Francophone Studies	Rick Eckstein	Translating Cultural Values: Gender, Power, and Work within Cameroonian-American Communities
Laura Solomon	Biology	James Wilson	Expression of the conserved stress survival protein YdcI in a broad range of bacteria.
Christopher Walsh	Business	Patrick Magitti	A Quantitative Impact Assessment of Business Plan Competitions on Entrepreneurial Growth in National Universities
Tianjiao Wang	Biochemistry	Janice Knepper	Analysis of regulatory regions for the potential oncogene Tmem170