

**April 22, 2009**

**UNDERGRADUATE  
Research & Creative  
Achievement Day**



**Master Roster of  
Presenters by Department**

University Center 3rd Floor

Scroll down for all URCAD 2009 presentations by department or program in alphabetical order

American Studies  
Ancient Studies  
Biochemistry  
Bioinformatics  
Biological Sciences  
Chemical Engineering  
Chemistry  
Computer Engineering  
Computer Science  
Dance  
English  
Environmental Science  
Health Administration and Policy  
History  
Information Systems  
Inter-Disciplinary Studies  
Mathematics  
Mechanical Engineering  
Modern Languages and Linguistics  
Music  
Philosophy  
Physics  
Political Science  
Psychology  
Social Work  
Visual Arts

Scroll down to see individual department and program listings.

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University Center 3rd Floor

**American Studies**

Student: **Susan Kane**  
Mentor: **Dr. Kathy Bryan**  
UC 312  
1:45 - 2:00 p.m.

**“Designing Culturally-Sensitive Curricula in Native American Reservation Schools: The Seminole Nation”**

Student: **Alexandra Hyland**  
Mentor: **Dr. Jason Loviglio**  
UC 312  
2:00 p.m. - 2:15 p.m.

**“The Baltimore Girl: An Experiment in Sustainable Living”**

**Ancient Studies**

Students: **Cally Brandt and Sarah Ryan**  
Mentor: **Dr. Richard Mason**  
UC Ballroom  
12:30 - 3:00 p.m.

**“Ways of Seeing” - Looking at *The Creative Photograph in Archaeology* Exhibit in the Albin O. Kuhn Library Gallery”**

**Biochemistry**

**Oral Presentations**

Student: **Dina Popovkina**  
Mentor: **Dr. Scott Thompson**  
11:00 - 11:15 a.m. in UC 312

**“The Effect of Corticosterone and trkB Receptor Downregulation on Dendritic Spine Density”**

Student: **Olufolakemi Awe**  
Mentor: **Dr. Michael Donnenberg**  
1:30 - 1:45 p.m. in UC 310

**“Analyzing the Interaction Partners, BfpU and BfpA, of the Bundlin Forming Pilus of Enteropathogenic E. coli (EPEC)”**

Student: **Sunaina Khandelwal**  
Mentor: **Dr. Alessio Fasano**  
1:45 - 2:00 p.m. in UC 310

**“PBMC from a Subpopulation of Celiac Patients Respond to Gliadin with Interleukin-8 Production that is CXCR3-Dependent”**

**Poster Presentations, UC Ballroom, 10:00 a.m. to 12:30 p.m.**

Student: **Maria Beckford**  
Mentor: **Dr. Katherine Radtke**

**“Synthesis of a Flexible Carboxycyclic Nucleoside”**

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- Student: **Bilguujin Dorjsuren**  
Mentor: **Dr. Michael Summers**  
“Investigation of the Existence of a Possible RNA Long-Range Interaction in the 5′-Untranslated Region of the HIV-1 Genome”
- Student: **Sara Kibrom**  
Mentor: **Dr. Richard Karpel**  
“Crotamine Interaction with Polysaccharides and Ternary Complex Formation”
- Student: **Gabrielle McRae**  
Mentor: **Dr. Donna Farber**  
“The Effect of Toll-Like Receptors on Dendritic Cell Activity and T-Cell Activation”
- Student: **Nirav Shelat**  
Mentor: **Dr. Allen Bush**  
“Structural Development of *Streptococcus oralis* YC1 Polysaccharide through NMR Spectroscopy”
- Student: **Daniel Shook**  
Mentor: **Dr. Richard Karpel**  
“Analysis of DNA Binding Amino acids of Gene 32 Protein and Crotamine by Mass Spectroscopy”
- Student: **Tesia Stephenson**  
Mentor: **Dr. Orna Cohen-Fix**  
“Identifying Novel Cell Cycle Regulators in Budding Yeast”

**Poster Presentations, UC Ballroom, 12:30 to 3:00 p.m.**

- Student: **Anissa Alexander**  
Mentor: **Dr. Christopher Plowe**  
“The Serine Repeat Antigen5: A Promising Malaria Vaccine Candidate”
- Student: **Stephanie Battle**  
Mentor: **Dr. Hua Lu**  
“Structure-Function Analysis of the Novel Defense Protein SUP3 in *Arabidopsis thaliana*”
- Student: **Destiney Buelto Nkechinyere A. Emezienna**  
Mentor: **Dr. Laundette Jones**  
“Characterization of Brown Adipose Tissue in the Adult Mammary Gland of Brca1-Mutant Mice”
- Student: **Mohsan Chaudhry**  
Mentor: **Dr. Ramachandra Hosmane**  
“Ring-Expanded Nucleotides/Nucleosides as Potential Anti-Viral and Anti-Cancer Agents”
- Student: **Nwamaka Dike**  
Mentor: **Dr. Bret Hassel**  
“Regulation of the Antiviral Tumor Suppressor RNase-L by MicroRNAs”
- Student: **Monique Foster**  
Mentor: **Dr. Veronika Szalai**  
“Impact of Cu(I) Binding to Amyloid-beta in Alzheimer's Disease”

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Student: **Benyam Kinde**  
Mentor: **Dr. Michael Summers**

**“An NMR Protocol for the High-Resolution  
Structure Determination of Large RNAs”**

Student: **Gowry Kulandaivel**  
Mentor: **Dr. Michael Summers**

**“Disproving the Existence of an Interaction  
Between the Primer Binding Site and the SL4  
Stemloop of the HIV-1 RNA Genome”**

Student: **Jessica Michaels**  
Mentor: **Dr. Ramachandra Hosmane**

**“Novel Site Directed Affinity Reagent for  
Cross-Linking Human Hemoglobin: A Tetra-  
Aldehyde Cross-Linking Reagent”**

Student: **Christelle Samen**  
Mentor: **Dr. Violeta Rus**

**“IL-21 is Increased in CD4<sup>+</sup> T Cells and Serum  
of Patients with SLE”**

Student: **Tanu Sharma**  
Mentor: **Dr. Phyllis Robinson**

**“Searching for the Counterion to the  
Protonated Schiff Base in Melanopsin”**

Student: **Igor Shusterman**  
Mentor: **Dr. Patricio O'Donnell**

**“Prefrontal Cortex Deficits in a Delay Odor  
Discrimination Task in a Rat Model of  
Schizophrenia”**

**Bioinformatics**

Student: **Mayukh Chakrabarti**  
Mentor: **Dr. Tomoshige Kino**  
**9:30 - 9:45 a.m. UC 312**

**“Mechanism of Action of the CDK5-GR-APP  
Pathway in Beta-Amyloid Production and  
Alzheimer's Disease Pathogenesis”**

Student: **Asa Adadey**  
Mentor: **Dr. Maricel Kann**  
**12:30 - 3:00 p.m.**  
**UC Ballroom**

**“Computational Methods for Linking  
Domain Loss or Substitution in Alternative  
Splicing Variants with Diseases”**

Student: **Richard S.L. Blissett**  
Mentor: **Dr. Maricel Kann**  
**12:30 - 3:00 p.m.**  
**UC Ballroom**

**“Optimization of Species Selection for  
Genome-Wide Application of the Mirrortree  
Method”**

Student: **Albert Kung**  
Mentor: **Dr. Ivan Erill**  
**12:30 - 3:00 p.m.**  
**UC Ballroom**

**“Training a Neural Network to Detect  
Binding Sites Based on Bendability and  
Curvature Information”**

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**Biological Sciences**

**Oral Presentations**

**10:30 - 10:45 a.m.**

**UC 312**

Student: **Jessica McGrath**

Mentor: **Dr. Michael Summers**

**“The Relationship Between the Structure of the FIV  
Matrix Protein and its Ability to Target the Plasma  
Membrane”**

**10:45 - 11:00 a.m.**

**UC 312**

Student: **Tamika John**

Mentor: **Dr. Lasse Lindahl**

**“Investigating the Role of RORgammaT in Human Th17  
Cell Differentiation”**

**11:00 - 11:15 a.m.**

**UC 312**

Student: **Dina Popovkina**

Mentor: **Dr. Scott Thompson**

**“The Effect of Corticosterone and trkB Receptor  
Downregulation on Dendritic Spine Density”**

**11:15 - 11:30 a.m.**

**UC 312**

Student: **Sasan Salimian**

Mentor: **Dr. Hua Lu**

**“Exploiting *acd6-1* in Dissection of Defense Signaling  
Networks in Arabidopsis”**

**2:15 - 2:30 p.m.**

**UC 310**

Student: **Melissa Chapman**

Mentor: **Dr. Andrea Kalfoglou**

**“To Tell or not to Tell: The Ethical Dilemma of Carrier  
Testing for Gaucher's Disease”**

**Poster Presentations, UC Ballroom, 10:00 a.m. – 12:30 p.m.**

Student: **Brook Asamenew**

Mentor: **Dr. Charles Bieberich**

**“Analysis of the c-Myc Transcription Factor in Mouse  
Models of Prostate Cancer”**

Student: **Irene Cho**

Mentor: **Dr. Jeff Leips**

**“The Effects of S6K Gene on Immune Response in  
*Drosophila melanogaster*”**

Student: **Ejiofor Ezekwe and  
Ramon Cabrera**

Mentor: **Dr. Weihong Lin**

**“Irritant-Induced Proliferation of Presumed Solitary  
Chemosensory Cells in the Airway”**

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**Poster Presentations, UC Ballroom, 10:00 a.m. – 12:30 p.m.**

- Student: **Whitney Fields**  
Mentor: **Dr. Janice Zengel**      “Localization of Myo1 in *Saccharomyces cerevisiae* Mutants with a Mult-budded Phenotype”
- Student: **Phillip Fitzgerald**  
Mentor: **Dr. William Reid**      “Increased Expression of SOCS1 by HIV-1 Transgenic Rats: A Mechanism for Dysregulated T Helper-1 Responses”
- Student: **Chioma Ihekweazu**  
Mentor: **Dr. Scott Strome**      “Production of an EMMPRIN Murine Immunoglobulin Fc Fusion Protein to Study Tumor Invasion”
- Student: **Ruby Jackson-Atogi**  
Mentor: **Dr. Jeff Leips**      “The Role of Prior Experience on Parasitoid Host Choice”
- Student: **Vovanti Jones**  
Mentor: **Dr. Tim Schedl**      “Using Next Generation Solexa Sequencing to Identify Genes that Regulate Stem Cell Proliferation in the *C. elegans* Germline”
- Student: **Sara Stockman**  
Mentor: **Dr. Greg Elmer**      “Assessment of Hippocampal Integrity In Development of Specific Anti-mitotic Lesion Model”
- Student: **Margarita Tsionsky**  
Mentor: **Dr. Hua Lu**      “Characterization of SUP3 Homologues in *Arabidopsis* defense”
- Student: **Steven Tuyishime**  
Mentor: **Dr. Janice Zengel**      “Myo1 Localization’s Effect on Multi-Budded Phenotype in *Saccharomyces cerivisiae*”
- Student: **Katherine Woronowicz**  
Mentor: **Dr. Phyllis Robinson**      “Investigating the Secondary Structure of the Mouse Melanopsin Carboxy-Tail”

**Poster Presentations, UC Ballroom, 12:30 – 3:00 p.m.**

- Student: **Yohance Allette**  
Mentor: **Dr. Rachel Brewster**      “Analysis of the MAP dclk1 and its Effect on Microtubule Stabilization During Neurulation in the Zebrafish”
- Student: **Ashleigh Bouchelion**  
Mentor: **Dr. David Eisenmann**      “The Wnt Pathway: Identification of Target Genes in *C. elegans*”

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**Poster Presentations, UC Ballroom, 12:30 – 3:00 p.m.**

- Student: **Erwin Cabrera**  
Mentor: **Dr. Phyllis Robinson**      “Probing the Structure of Rhodopsin and Human Green Opsin Using Site Directed Spin Labeling”
- Student: **Michael Castello**  
Mentor: **Dr. Jessica Mong**      “Changes in MMP-9 Protein Levels as an Indicator of Brain Perturbation by Nicotine Exposure”
- Student: **Nancy Chiles**  
Mentor: **Dr. Ann Gruber-Baldini**      “Education and its Role in Recovery from a Hip Fracture”
- Student: **Tyler Frankel**  
Mentor: **Dr. Tamra Mendelson**      “Disassortative Mating Based On Color In the Freshwater Platyfish *Xiphophorus maculatus* (Poeciliidae)”
- Student: **Lydia Grmai**  
Mentor: **Dr. Suzanne Ostrand-Rosenberg**      “Mechanisms of Suppression in Breast Cancer”
- Student: **Nana Owusu-Boaitey**  
Mentor: **Dr. David Scott**      “The Utilization of TAT Fusion Protein for Tolerance Induction in the EAE Model”
- Student: **Nicole Parker**  
Mentor: **Dr. Jia Bei Wang**      “PKCI/HINT1 Involvement in the Learning and Behavior of the Morris Water Maze Test Using Proximal Cues”
- Student: **Alexandria Scott**  
Mentor: **Dr. Tamra Mendelson**      “Using Phylogenetic Differences Between Species to Estimate Geological Timing”

**Chemical Engineering**

**Oral Presentation, UC 312**

- 11:30 - 11:45 p.m.**      “Design for Algae-Based Biodiesel and Ethanol Fuel Plant”  
Students: **Rob Low, Fellipe F. Balieiro, Timothy D. Courtney, Thomas C. Hsu, and Khurram S. Mahmood**  
Mentor: **Dr. Mariajose Castellanos**

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**Poster Presentations, UC Ballroom, 10:00 a.m. to 12:30 p.m.**

Student: **Nizeet Aguilar, Robert P. Reeves, Robert J. Marino, Adebimpe D. Oyede, and Jessica DeWitt**  
Mentor: **Dr. Mariajose Castellanos**  
“Feasibility Study of the Design of Artovastatin Calcium (Lipitor®) Pharmaceutical Plant”

Student: **Ryan Connor**  
Mentor: **Dr. Mariajose Castellanos**  
“Poor Drug Penetration into the Central Nervous System and its impact on HIV-1 Pathogenesis: A Mathematical Model”

Student: **Timothy Courtney**  
Mentor: **Dr. Mark Marten**  
“Efficacy of Protein Quantitation Assays Compatible with Two Dimensional Gel Electrophoresis”

**Poster Presentations, UC Ballroom, 12:30 to 3:00 p.m.**

Student: **Jonathan Bollinger, Goncalo Maia, Michael Pacella, and Michael German**  
Mentor: **Dr. Mariajose Castellanos**  
“*In silico* Modeling and Optimization of Algal Biomass Production”

Student: **Robert Henderson**  
Mentor: **Dr. Mariajose Castellanos**  
“HIV Dynamics: Infection Kinetics”

Student: **Paula McCusker**  
Mentor: **Dr. Mariajose Castellanos**  
“A Mathematical Model of the HPV Infection Mechanism”

Student: **Oluwaseun Olayiwola**  
Mentor: **Dr. Mariajose Castellanos**  
“GTPases Mathematical Framework Dynamics”

Student: **Michael Pacella**  
Mentor: **Dr. Mariajose Castellanos**  
“Creating a Mathematical Model of Chlamydomonas Reinhardtii Metabolism”



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Student: **Ryan Park, Ryan Connor Benjamin Link, and Joel Gwinn**  
Mentor: **Dr. Mariajose Castellanos**

**“Industrial Production of Aspartame: Economic Feasibility Study on Entering the Market”**

Student: **Aileen Richards, Mike S. German, Ashrith Mathias, Olu Olayiwola, and Benjamin Schultz**  
Mentor: **Dr. Mariajose Castellanos**

**“The Economic Feasibility of Algae as a Green Energy Source”**

Student: **Melissa Santos**  
Mentor: **Dr. Leah Tolosa**

**“Development of Intuitive Fluorescent Biosensor for Glucose”**

Student: **Hannah Wilson**  
Mentor: **Dr. Julia Ross**

**“Effect of Nutrient Conditions on Staphylococcus aureus Biofilm Formation”**

**Chemistry**

**Oral Presentations**

Student: **Michael German**  
Mentor: **Dr. Daniele Fabris**  
**9:45 - 10:00 a.m. UC 312**

**“ESI-FTICRMS Characterization of Deoxyribozymes Targeting Conserved Domains of the HIV-1 Packaging Signal”**

Student: **George Cutsail, III**  
Mentor: **Dr. Veronika Szalai**  
**9:15 - 9:30 a.m. UC 312**

**“Copper Amyloid-beta Complex in Alzheimer's Disease”**

Student: **Dina Popovkina**  
Mentor: **Dr. Scott Thompson**  
**11:00 - 11:15 a.m. UC 312**

**“The Effect of Corticosterone and trkB Receptor Downregulation on Dendritic Spine Density”**

Student: **Sunaina Khandelwal**  
Mentor: **Dr. Alessio Fasano**  
**1:45 - 2:00 p.m. UC 310**

**“PBMC from a Subpopulation of Celiac Patients Respond to Gliadin with Interleukin-8 Production that is CXCR3-Dependent”**

Student: **Olufolakemi Awe**  
Mentor: **Dr. Michael Donnenberg**  
**1:30 - 1:45 p.m. UC 310**

**“Analyzing the Interaction Partners, BfpU and BfpA, of the Bundlin Forming Pilus of Enteropathogenic *E. coli* (EPEC)”**

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Student: **Bilguujin Dorjsuren**  
Mentor: **Dr. Michael Summers**

**“Investigation of the Existence of a Possible RNA Long-Range Interaction in the 5’ Untranslated Region of the HIV-1 Genome”**

Student: **Joy Ihekweazu**  
Mentor: **Dr. Lisa Kelly**

**“Self-Reporting Fluorescent Nanogels”**

Student: **Sara Kibrom**  
Mentor: **Dr. Richard Karpel**

**“Crotamine Interaction with Polysaccharides and Ternary Complex Formation”**

Student: **Nathaniel Kim**  
Mentor: **Dr. Katherine Seley-Radtke**

**“Developing Carbocyclic Nucleoside Fleximers as Novel Drug Tools to Combat Drug Resistance”**

**Poster Presentations, UC Ballroom, 10:00 a.m. to 12:30 p.m.**

Student: **Gabrielle McRae**  
Mentor: **Dr. Donna Farber**

**“The Effect of Toll-Like Receptors on Dendritic Cell Activity and T-Cell Activation”**

Student: **Nirav Shelat**  
Mentor: **Dr. Allen Bush**

**“Structural Development of Streptococcus oralis YC1 Polysaccharide through NMR Spectroscopy”**

Student: **Daniel Shook**  
Mentor: **Dr. Richard Karpel**

**“Analysis of DNA Binding Amino acids of Gene 32 Protein and Crotamine by Mass Spectroscopy”**

Student: **Tesia Stephenson**  
Mentor: **Dr. Orna Cohen-Fix**

**“Identifying Novel Cell Cycle Regulators in Budding Yeast”**

Student: **Maria Beckford**  
Mentor: **Dr. Katherine Radtke**

**“Synthesis of a Flexible Carboxycyclic Nucleoside”**

**Poster Presentations, UC Ballroom, 12:30 to 3:00 p.m.**

Student: **Anissa Alexander**  
Mentor: **Dr. Christopher Plowe**

**“The Serine Repeat Antigen5: A Promising Malaria Vaccine Candidate”**

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Student: **Destiney Buelto**  
**Nkechinyere A. Emezienna**  
Mentor: **Dr. Laundette Jones**

**“Characterization of Brown Adipose Tissue in the Adult  
Mammary Gland of Brca1-Mutant Mice”**

Student: **Elizabeth Campbell**  
Mentor: **Dr. Bradley Arnold**

**“Solvent Effects on Charge Transfer Complexes”**

Student: **Mohsan Chaudhry**  
Mentor: **Dr. Ramachandra  
Hosmane**

**“Ring-Expanded Nucleotides/Nucleosides as Potential  
Anti-Viral and Anti-Cancer Agents”**

Student: **Nwamaka Dike**  
Mentor: **Dr. Bret Hassel**

**“Regulation of the Antiviral Tumor Suppressor RNase-L  
by MicroRNAs”**

Student: **Monique Foster**  
Mentor: **Dr. Veronika Szalai**

**“Impact of Cu<sup>+</sup> Binding to Beta Amyloid in Alzheimer's  
Disease”**

**Poster Presentations, UC Ballroom, 12:30 to 3:00 p.m.**

Student: **Benyam Kinde**  
Mentor: **Dr. Michael Summers**

**“An NMR Protocol for the High-Resolution Structure  
Determination of Large RNAs”**

Student: **Gowry Kulandaivel**  
Mentor: **Dr. Michael Summers**

**“Disproving the Existence of an Interaction Between the  
Primer Binding Site and the SL4 Stemloop of the HIV-1  
RNA Genome”**

Student: **Jessica Michaels**  
Mentor: **Dr. Ramachandra  
Hosmane**

**“Novel Site Directed Affinity Reagent for Cross-Linking  
Human Hemoglobin: A Tetra-Aldehyde Cross-Linking  
Reagent”**

Student: **Nick Pinkin**  
Mentor: **Dr. Ramachandra  
Hosmane**

**“Synthesis of Potential Inhibitors of Thymidylate  
Synthase Based on Quinazoline Structural Skeleton”**

Student: **Christelle Samen**  
Mentor: **Dr. Violeta Rus**

**“IL-21 is Increased in CD4<sup>+</sup> T Cells and Serum of  
Patients with SLE”**

Student: **Tanu Sharma**  
Mentor: **Dr. Phyllis Robinson**

**“Searching for the Counterion to the Protonated Schiff  
Base in Melanopsin”**

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Student: **Igor Shusterman**  
Mentor: **Dr. Patricio O'Donnell**

**“Prefrontal Cortex Deficits in a Delay Odor  
Discrimination Task in a Rat Model of Schizophrenia”**

Student: **Melvin Velasquez**  
Mentor: **Dr. Katherine Seley-  
Radtke**

**“Design and Synthesis of Flexible 2'-Deoxy Nucleoside  
Analog (Fleximers) As Potential Chemotherapeutic  
Agents”**

**Computer Engineering**

Student: **Aurelius Graninger**  
Mentor: **Dr. Fow-Sen Choa**  
**University Center Ballroom**  
**10:00 a.m. - 12:30 p.m.**

**“Stand-Off Chemical Detection Using Acoustic  
Beamforming and Photoacoustic Sensing”**

Student: **Joseph Hyman**  
Mentor: **Dr. James Oates**  
**University Center Ballroom**  
**10:00 a.m. - 12:30 p.m.**

**“Development of an Algorithm to Allow Robots to  
Objectively Analyze Causally Relevant Objects in the  
Environment”**

**Computer Science**

**U.C. Ballroom 10:00 a.m. – 12:30 p.m.**

Student: **Roger Guseman**  
Mentor: **Dr. Marie desJardins**

**“Probabilistic Constrained Relational Clustering with an  
Application to Facebook”**

Student: **Peter Hamilton**  
Mentor: **Dr. Marie desJardins**

**“Applying Swarm Rule Abstraction to a Wireless Sensor  
Network Domain”**

Student: **Michael Lombardi**  
Mentor: **Dr. Marie desJardins**

**“Measuring General Relational Structure Using the  
Block Modularity Clustering Objective”**

Students: **UMBC Game  
Development Club**  
Mentor: **Dr. Marc Olano**  
**10:00 a.m. - 12:30 p.m.**

**“Explorations in Game Development: Creating 2D and  
3D Worlds”**

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**U.C. Ballroom 12:30 p.m. – 3:00 p.m.**

Students: **UMBC Game  
Development Club**  
Mentor: **Dr. Marc Olano**  
**10:00 a.m. - 12:30 p.m.**

**“Explorations in Game Development: Creating 2D and  
3D Worlds”**

**Dance**

**Dance Studio, Fine Arts 317**

**9:50 - 10:10**

Student: **Joshua Barnard**  
Mentor: **Mr. Doug Hamby**

***“Something Like It”***

**10:10 - 10:30**

Student: **Hannah Rzasa**  
Mentor: **Mr. Doug Hamby**

***“Enraptured”***

**10:30 - 10:50**

Student: **Tania Knight**  
Mentor: **Mr. Doug Hamby**

***“passIoNate eMOTION”***

**10:50 - 11:10**

Student: **Hannah Rzasa**  
Mentor: **Mr. Doug Hamby**

***“Letters from Jane: A Tribute to Jane Austen”***

**11:10 - 11:30**

Student: **Mya Ajanku**  
Mentor: **Mr. Doug Hamby**

***“From Chaos”***

**11:30 - 11:50**

Student: **Angel Chinn**  
Mentor: **Mr. Doug Hamby**

***“Pluto 2086”***

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**English**

Student: **Nikoletta Gjoni**  
Mentor: **Dr. Raphael Falco**  
**10:15 - 10:30 a.m. UC 310**

**“Communism and Censorship: A Stunting of Albania's  
Literary Culture or the Birthing of a Unique National  
Movement?”**

**Environmental Science**

Student: **Jessica Childs**  
Mentor: **Dr. Laura Lewis**  
**10:00 a.m. - 12:30 p.m.**  
**UC Ballroom**  
**Poster Presentation**

**“Food Deserts and their Presence in a Southwest  
Community of Baltimore City”**

Student: **Daniel Jones**  
Mentor: **Dr. Junmei Tang**  
**12:30 - 3:00 p.m.**  
**UC Ballroom**  
**Poster Presentation**

**“3D Tour of an Urban Environmental Research Site  
Using Google Earth and KML”**

**HAPP**

Student: **Richard Blissett**  
Mentor: **Dr. Andrea Kalfoglou**  
**10:00 a.m. - 12:30 p.m.**  
**UC Ballroom**  
**Poster Presentation**

**“PGS: A Fishy Business”**

Student: **Mary Rhee**  
Mentor: **Dr. Andrea Kalfoglou**  
**10:00 a.m. - 12:30 p.m.**  
**UC Ballroom**  
**Poster Presentation**

**“Ethical Issues Unique to Facial Transplantation”**

Student: **Melissa Chapman**  
Mentor: **Dr. Andrea Kalfoglou**  
**2:15 - 2:30 p.m.**  
**UC 310**

**“To Tell or not to Tell: The Ethical Dilemma of Carrier  
Testing for Gaucher's Disease”**

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**Master Roster of  
Presenters by Department**

University Center 3rd Floor

Student: **Esther Lei**

Mentor: **Ms. Danika Rockett**

**2:30 - 2:45 p.m.**

**UC 310**

**Oral Presentation**

**“Re-evaluating Malaria Prevention Techniques in  
Zambia”**

Student: **Neal Karkhanis**

Mentor: **Dr. Andrea Kalfoglou**

**2:45 - 3:00 p.m.**

**UC 310**

**“Survey of UMBC Students' Knowledge, Attitudes, and  
Beliefs about Seeking Care for Emotional and Mental  
Health Problems”**

**History**

Student: **Alexander Bush**

Mentors: **Dr. Rebecca Boehling  
and Dr. Constantine Vaporis**

**2:15 p.m. - 2:30 p.m. UC 312**

**“Comparing Procedure, Evidentiary Rules, and  
Sentencing in Three World War II POW War Crimes  
Trials”**

Student: **Teresa Bass Foster  
and Vicki M. Heath**

Mentor: **Dr. Amy Froide**

**2:30 - 2:45 p.m. UC 312**

**“Using Court Records as Historical Sources: A Study of  
Infanticide in 18th-century London s Old Bailey  
Criminal Court”**

Student: **Maureen C. Maselko**

Mentor: **Dr. Amy Froide**

**3:15 - 3:30 p.m. UC 310**

**“Under the Colour of Religion': The Formation of  
Group Identity in Early Modern Ireland”**

**Information Systems**

Student: **Matthew Schultz**

Mentor: **Dr. Roy Rada**

**10:00 - 10:15 a.m. UC 312**

**“Knowledge-Supported Evolutionary Computation in  
Financial Investing”**

**INDS**

Student: **Theresa Columbus**

Mentor: **Mr. Steven Bradley**

**9:45 - 10:00 a.m. UC 310**

**Oral Presentation**

**“Fear and Wisdom and Others”**

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Student: **Yelena Dewald**  
Mentor: **Dr. Devin Hagerty**  
**10:00 - 10:15 a.m. UC 310**  
**Oral Presentation**

**“The Internet and Iranian Youth Culture”**

Student: **Samantha Bier**  
Mentor: **Dr. Bambi Chapin**  
**12:30 - 3:00 p.m.**  
**UC Ballroom**  
**Poster Presentation**

**“Perspectives in Global Health: Working with Survivors  
of Torture and Trauma”**

**Mathematics**

Student: **Immanuel Williams**  
Mentor: **Dr. Natalie Eddington**  
**10:15 - 10:30 a.m. UC 312**

**“Pharmacokinetics of D3 Receptor Analogs: Potential  
Drug Therapy for Cocaine Addiction”**

Student: **Geoffrey Clapp**  
Mentor: **Dr. Kathleen Hoffman**  
**10:00 a.m. - 12:30 p.m.**  
**UC Ballroom**

**“Modeling Sensory Input to the Lamprey Spinal Cord”**

Student: **Alison Ebaugh**  
Mentor: **Dr. Jonathan Bell**  
**10:00 a.m. - 12:30 p.m.**  
**UC Ballroom**

**“A Biophysical Model of Synaptic Plasticity”**

Student: **Michael Reid**  
Mentor: **Dr. Matthias Gobbert**  
**12:30 - 3:00 p.m.**  
**UC Ballroom**

**“Parallel Performance Studies for a Numerical Simulator  
of Atomic Layer Deposition”**

**Mechanical Engineering**

Student: **Jason VerHoef, Brian  
Steele, and Yakubu Wanka**  
Mentor: **Mr. Richard Wilson**  
**UC 201B 2:15 - 3:30 p.m.**

**“Analysis of the South Korean Sampoong Department  
Store Collapse From An Engineering Ethics Perspective”**



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Student: **Deanna Easley**  
Mentor: **Dr. Timmie Topoleski**  
**UC Ballroom**  
**10:00 a.m. - 12:30 p.m.**

**“Investigation on the Creation of a More Efficient Wear  
Test Machine with Controlled Environments”**

Student: **Brandon Borde and  
Oluwatimilehin Fadiran**  
Mentor: **Dr. Timmie Topoleski**  
**UC Ballroom**  
**12:30 - 3:00 p.m.**

**“Analysis of the Mechanical Behavior of Bovine  
Descending Aorta Under Various Conditions”**

**Modern Languages and Linguistics**

Student: **Valerie Lagrome**  
Mentor: **Dr. Thomas Field**  
**UC 312 2:45 - 3:00 p.m.**

**“Linguistic Norm Enforcement on the Internet:  
Chatspeak in Forum Communities”**

Student: **Holly-Catherine Britton**  
Mentor: **Dr. Thomas Field**  
**UC 312 3:00 - 3:15 p.m.**

**“Lexical Variations in Telling Clock Time: A Study of  
Age and Style Differences”**

Student: **Kristina Gaddy**  
Mentor: **Ms. Susanne Sutton**  
**UC 312 3:15 - 3:30 p.m.**

**“Creating National Identity and Memory: The German  
Historical Museum”**

**Music**

Students: **Jacob Jensen, Danielle  
Durbin, Kimberly Patrick, and  
Una Petrovic**  
Mentor: **Dr. Anna Rubin**  
**10:00 – 11:30 a.m. and  
1:30 – 3:00 p.m.**  
**Fine Arts Building Stairwell**

**“*What's Inside a Rose?*; A Presentation of Dada and  
Surrealist Inspired Art”**

Student: **Marcus Simmons**  
Mentor: **Mr. David Smith**  
**1:15 - 1:30 p.m. UC 312**  
**Demonstration and Oral Presentation**

**“If You Can Talk, You Can Sing”**

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Student: **Danielle Durbin**  
Mentor: **Dr. Lisa Cella**  
**1:30 - 1:45 p.m. UC 312**  
**Demonstration and Oral Presentation**

**“Flute Lineage”**

Student: **Barbara Scheffter**  
Mentor: **Dr. Airi Yoshioka**  
**12:30 - 3:00 p.m.**  
**UC Ballroom**  
**Poster Presentation**

**“Getting a *Handel* on Bells: Designing a Summer Music  
Camp that ‘Rings True’ with Music Education Theories”**

**Philosophy**

Students: **Bryan Clark and  
Harshavardhan Bambawale**  
Mentor: **Mr. Richard Wilson**  
**2:15 - 3:30 p.m. UC 201B**  
**Panel Discussion**

**“Identity Theft”**

Students: **Clayton Day, Jay  
Chung, and Thaha Shafi**  
Mentor: **Mr. Richard Wilson**  
**2:15 - 3:30 p.m. UC 201B**  
**Panel Discussion**

**“The Wall Street Shadow Market”**

**Physics**

Student: **Stephanie Ferrone**  
Mentor: **Dr. Todd Pittman**  
**UC 310 1:15 - 1:30 p.m.**

**“Quantum Interference Effects with Multimode Fibers”**

Student: **Joseph Dulny, III**  
Mentor: **Dr. L. Michael Hayden**  
**UC Ballroom**  
**10:00 a.m. - 12:30 p.m.**

**“Effects of a Dipolar Polymer Host Matrix on the Poling  
Efficiency of Guest Chromophores”**

Student: **Aaron Pearlman**  
Mentor: **Dr. Robin Corbet**  
**UC Ballroom**  
**10:00 a.m. - 12:30 p.m.**

**“A Model for Iron K Absorption in the Low-Mass X-ray  
Binary GX 13+1”**

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Student: **Ian Nolen**  
Mentor: **Dr. Michael Hayden**  
UC Ballroom  
12:30 - 3:00 p.m.

**“Ellipsometric Measurements of the Electro-Optic Coefficient”**

**Political Science**

Student: **H. Saeed**  
Mentor: **Dr. Jeffrey Davis**  
9:15 - 9:30 a.m.  
UC 310

**“Ending the Cycle of Violence: The Role of a Truth Commission”**

Student: **Sharanya Ravichandran**  
Mentor: **Dr. Devin Hagerty**  
10:00 a.m. - 12:30 p.m.  
UC Ballroom

**“The Caste System and its Prevalence in Contemporary Indian Society”**

Students: **Priya Tiwari, Betty Irungu, Gillian Yeadon, and Katie Papagjika**  
Mentor: **Dr. Tyson King-Meadows**  
12:30 - 3:00 p.m.  
UC Ballroom

**“Delegated to Represent? Exploring the Racial and Gender Differences in Delegate Demographics at the 2008 Democratic National Convention”**

**Psychology**

**Oral Presentations, UC 310**

Student: **Scott Murdock**  
Mentor: **Dr. Charissa Cheah**  
10:30 - 10:45 a.m.

**“Autonomy Development, Support, and Future Orientation in Adolescent Mothers”**

Student: **Sadaf Siddiqi and Elizabeth A. Fitzgerald**  
Mentor: **Dr. Charissa Cheah**  
10:45 - 11:00 a.m.

**“Dual Identity Formation Among Adolescent Mothers”**

Student: **Doha Chibani**  
Mentor: **Dr. Diane Alonso**  
11:30 - 11:45 a.m.

**“Effects of Apparent Ethnicity in an Individual's Name on Perceived Qualifications in the Professional Service Industry”**

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Student: **Tahira Mahdi**  
Mentor: **Dr. Shawn Bediako**  
**11:45 - 12:00 p.m.**

**“It’s Written All Over Your Face: Perceptions of Genetic Illnesses”**

Student: **Dhivya R. Pahwa**  
Mentor: **Dr. Shawn Bediako**  
**2:00 - 2:15 p.m.**

**“Categorical Person Perception in Sickle Cell Disease”**

**Poster Presentations, UC Ballroom, 10:00 a.m. to 12:30 p.m.**

Student: **Bridget Armstrong and  
Craig Whitten**  
Mentor: **Dr. Lynnda Dahlquist**

**“Effects of Using Head Mounted Display Helmet for  
Virtual Reality Distraction on Cold Pressor Pain in  
College Students”**

Student: **Jessica M. Griffith**  
Mentor: **Dr. Lynanne M. McGuire**

**“Sex Differences in Pain Responses: Do Men and Women  
Experience Pain Differently?”**

Student: **Alexandra Psihogios**  
Mentor: **Dr. Lynnda Dahlquist**

**“The Effects of Age Differences in Preschool Children on  
Help-Seeking Behaviors During Easy and Difficult Puzzle  
Tasks”**

Student: **Elizabeth Silberholz**  
Mentor: **Dr. Lynnda Dahlquist**

**“The Relation Between Pediatric Food Allergy Severity,  
Peer Interactions, and Report of Child Behavioral  
Problems”**

Student: **Rebecca Zia**  
Mentor: **Dr. Charissa Cheah**  
**10:00 a.m. - 12:30 p.m.**

**“Moderating and Mediating Factors in the Association  
Between Maternal Psychological Control and Child  
Aggression in Chinese Immigrants”**

**Poster Presentations, UC Ballroom, 12:30 to 3:00 p.m.**

Student: **Penina Backer**  
Mentor: **Dr. Mariano Sto.  
Domingo**

**“The Effects of Educational Content and Gender on the  
Perception of Individuals with Schizophrenia”**

Student: **Elizabeth Lamontagne**  
Mentor: **Dr. Lynanne McGuire**

**“Pain-Related Anxiety Correlates with Sensory Aspects  
of Pain”**

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**Social Work**

Student: **Rhonda Bavis**  
Mentor: **Dr. Shelly Wiechelt**  
**11:00 - 11:15 a.m. UC 310**

**“The Effects of Parental Substance Abuse on Children  
and Families”**

Students: **April Melton and  
Monica Talcott**  
Mentor: **Dr. Laura Ting**  
**11:15 - 11:30 a.m. UC 310**

**“Volunteerism in the Aging Population”**

Student: **Samantha Watts**  
Mentor: **Dr. Tiffany Baffour**  
**12:30 - 3:00 p.m.**

**“Examining the Barriers and Facilitators to  
Breastfeeding in Women Attending a Post-Secondary  
Educational Institution”**

**Visual Arts**

**Film Presentations, Fine Arts 221**

Student: **Glen Fortner**  
Mentor: **Mr. Fred Worden**  
**1:15 - 1:25 p.m.**

***“The Real World”***

Student: **Raychyl Segovia**  
Mentor: **Mr. Fred Worden**  
**1:25 - 1:35 p.m.**

***“Path to Perception”***

Student: **David Hernandez**  
Mentor: **Mr. Fred Worden**  
**1:35 - 1:50**

***“Just Beyond the Bridge”***

Student: **Brendan Huza**  
Mentor: **Mr. Fred Worden**  
**1:50 - 2:05 p.m.**

***“Aliens Love Cheerleaders”***

Student: **Matthew Szychowski**  
Mentor: **Mr. Fred Worden**  
**2:05 - 2:15 p.m.**

***“Escape from Ping Island”  
And  
“Cold Lady”***

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Student: **Megan Zlock**  
Mentor: **Mr. Eric Dyer**  
**2:20 - 2:30 p.m.**

**“Visual Symphony: *Try to Believe*”**

Student: **Agnes Asplund Leslie  
Bristow**  
Mentor: **Ms. Cathy Cook**  
**2:30 - 2:40 p.m.**

**“*Our Own World*”**

Student: **Jonathan Widmer**  
Mentor: **Mr. Fred Wordon**  
**2:40 - 2:55 p.m.**

**“*Movement*”**

Student: **Jessica Hale**  
Mentor: **Mr. Fred Worden**  
**2:55 - 3:05**

**“*Growth*”**

Student: **Matthew J. Szychowski**  
Mentor: **Mr. Fred Worden**  
**3:05 - 3:25 p.m.**

**“*Blue Duck*”**

**Artistic Installations, Fine Arts First Floor Hallway Gallery**

Student: **Samantha Song**  
Mentor: **Mr. Franc Nunoo-  
Quarcoo**

**“Child Brides, Stop Child Brides NOW!”**

Student: **Sarah Fry Jenna Ullrich**  
Mentor: **Mr. Franc Nunoo-  
Quarcoo**

**“Female Genital Cutting”**

Student: **Belen Getahun**  
Mentor: **Mr. Franc Nunoo-  
Quarcoo**

**“Gender Issues in Ethiopia”**

Student: **Jesse Vaughan and  
Emma Rava**  
Mentor: **Mr. Franc Nunoo-  
Quarcoo**

**“Rape”**

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Student: **Terry Von Hagel**  
Mentor: **Mr. Franc Nunoo-  
Quarcco**

**“Same Sex Union Laws”**

Student: **Jesse Vaughan**  
Mentor: **Ms. Lynn Cazabon**

**“In Bed”**

Student: **Sean Heavey and Adam  
Utapat**  
Mentor: **Dr. Franc Nunoo-  
Quarccoos**  
**12:30 - 3:00 p.m.**

**“900,000: An Exploration of the International Human  
Trafficking Epidemic”**

Student: **Alexandra Seley**  
Mentor: **Ms. Lynn Cazabon**  
**10:00 a.m. - 11:30 a.m.**

**“Constructed Landscapes”**