

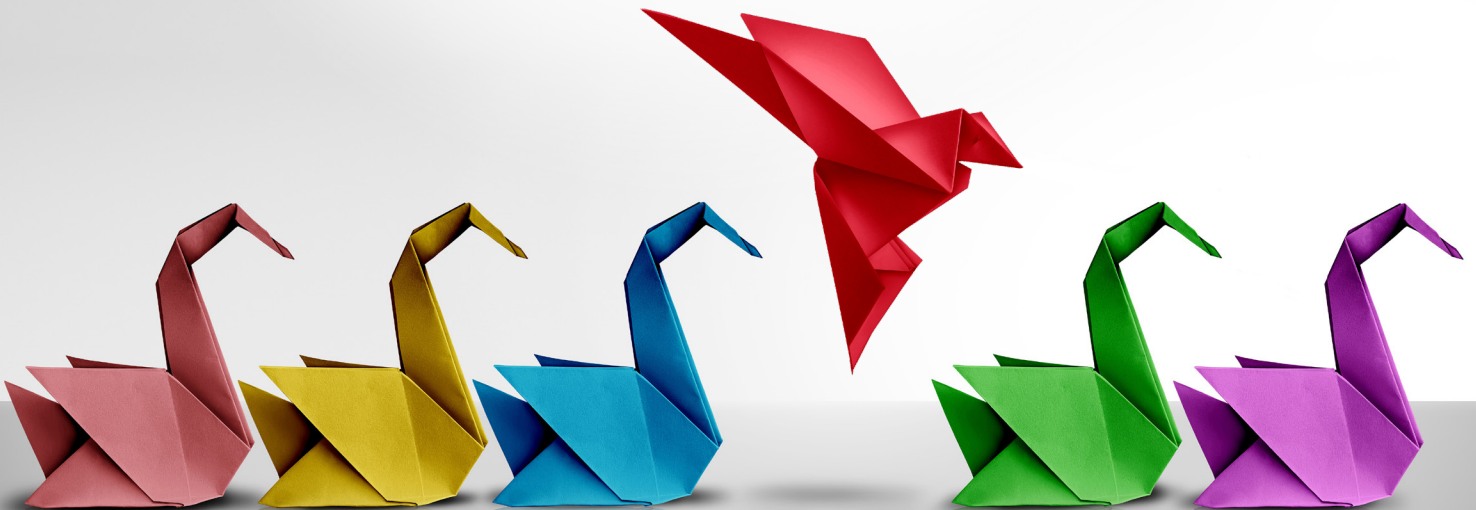
Student presentations of creativity and scholarship
that proudly define our campus community.



FITCHBURG STATE
UNIVERSITY

UNDERGRADUATE CONFERENCE

For Research and Creative Practice
April 16, 2026



HAMMOND HALL - 8 AM - 12 PM

fitchburgstate.edu/ug-conference



Poster & Oral Presentations • Creative Writing Showcase
Visual Artworks • Lightning Talks • Technology Demonstrations



Breakfast & Student Presenter Registration
8:00 – 8:45 AM | Tower Lobby, First Floor, Hammond Hall

Welcome Reception
8:30 – 8:45 AM | Main Lounge, First Floor, Hammond Hall 

Featured Performance: Fitchburg State Chamber Choir, Directed by Jonathan Harvey
Student Singers: Owen Badams; Cassidy Demir; Olly Durrett; Lexi Guillemette; Jocelyn Hart; Josh Lancaster; Grace Mita; Luke Parhiala; Izzy Raughley; Joey Schmidt-Gross; Andreus Shultz; Andrew Smith; Onyx Swanson

Welcome: Acting Provost and Vice President for Academic Affairs, Franca Barricelli;
and Conference Co-chair, Min Li

SESSION 1 | 8:50 – 9:50 AM

ORAL PRESENTATIONS

G01B Meeting Room, Ground Level, Hammond Hall

- Kole Broderick: *Athol Police Department—An Internship Presentation*
- Griffin Petrucci: *The Ashby Police Department*
- Paola Rivera-Sepulveda: *Inside Fitchburg’s Criminal Justice System*

G19 Meeting Room, Ground Level, Hammond Hall

- Stetson Daisy: *Minecraft for Circuitry Design and STEM Communication*
- Autumn Hughes: *Music Therapy and Early Childhood*
- Samantha Wozniak: *The Impacts of Childhood Bullying on the Relationships of College Students*

S06 Conference Room, Street Level, Hammond Hall

- Kyle Connolly: *Football: the Manipulation of Time and Space*
- Jacob Cordon: *Student-Athletes or Employees? The Changing Role of Division I Athletes*
- Gabriel Toomey: *Practical Effects: Why They Are Important and Better than CGI*

S08 Meeting Room, Street Level, Hammond Hall

- Cynthia Kamara: *Red Velvet: K-Pop’s Cute, Creepy Cake Girls*
- Drew Manzi: *Interpretive Narratives: How One Story Can Become Five*
- Emily Puccia: *Blurring Boundaries: Exploring Gender and Sexuality Through Anime Culture*

CREATIVE WRITING SHOWCASE

G02 Ellis White Lecture Hall, Ground Level, Hammond Hall

- Andrew Cardosi: *Healing Through Music*
- Adriana Kruger: *The Humanity of Retail*
- Mattea Garrett: *There’s Still a Lot of Time to Make Yourself Be What You Want to Be: “The Outsiders,” Its Adaptations, and Cultural Interpretations*
- Madeline Curran: *Steadfast*
- Anastasia Nutter: *The Destruction of Self: A Deconstruction Reading of “The Yellow Wallpaper”*

Please see maps of Hammond Hall on pages 7–11 for help navigating conference event locations.

LIGHTNING TALKS

G01 Meeting Room, Ground Level, Hammond Hall

- Natasha Brito: *Probation Internship*
- Kole Broderick: *A Teaching Practicum Presentation: Geographic Information Systems (GIS) for Criminal Justice*
- Cassidy Demir: *Video Games and Their Impacts*
- Ryan Doyle: *Screenplay Adaptation of "The Woman in White"*
- Collin Dudek: *Framingham Police Department Internship*
- Marc Laochan: *Westford Police Department Presentation*
- Valerie Rodriguez: *The Child Advocacy Center of Worcester County*
- Justyn Zuno: *Shrewsbury PD Internship*

VISUAL ARTWORKS

G11 Conference Room, Ground Level, Hammond Hall

- Lauren Keough: *Mel and I: Art, Self-Conception, and Growing Up a Fraternal Twin*
- Alexianna Lopez: *Visualizing Wealth*
- Alyssa Brayley: *The Skintight Anomaly*
- Sky Goba: *Beyond the Athlete*

Break: 9:50 – 10:00 AM | Travel time to reach Session 2 rooms

SESSION 2 | 10:00 – 11:00 AM

ORAL PRESENTATIONS

G01 Meeting Room, Ground Level, Hammond Hall

- Joseph James: *RNA-sequencing Program Analysis via Mathematical Methods*
- Kelly Li: *Drug Screening for Dysferlinopathy*
- Jjuuko Sharifah: *Identifying Treatments for Muscular Dystrophy*
- Taja Viera: *Therapeutic Evaluation of 4-phenylbutyrate in Models of Dysferlinopathy and Alpha-sarcoglycanopathy*

G01B Meeting Room, Ground Level, Hammond Hall

- Liliana Kaepfel: *Military Spending, Social Spending, and Income Inequality: Evidence from Global Data*
- Quintin Lemek: *Exploring Historical Problem Solving Techniques of Islamic and Japanese Mathematicians for a Modern Audience and Integration into Higher Dimensional and Computational Applications*
- Aidan Thompson: *Solving Minesweeper with a Linear Optimization Algorithm*

G02 Ellis White Lecture Hall, Ground Level, Hammond Hall

- Madison Ambrogi, Jace Lineham, Lukas Shell, Blake Bosworth: *Empowering Seniors in the Digital Age: Computer Literacy for All*
- Lillian Maxwell, Eric Edwards, Kristopher Zapata, Cameron Hartmant: *Bridging the Technology Equity Gap at the Fitchburg Senior Center*
- Julia Arena: *Clinical Measures Associated with Previous History of Lower Leg Overuse Injury in Collegiate Athletes*

G11 Conference Room, Ground Level, Hammond Hall

- Cayla Koduah: *Historical Representation of Native Americans: A Comparative Study of Printed and OER Textbooks*
- Kevin McDermott: *Dimensional Senate*
- Alexander McLean: *Vows*

G19 Meeting Room, Ground Level, Hammond Hall

- Zane Bauer: *Psychoanalytical Listening of "One" by Metallica*
- Max Gofstein: *How Surreal, Absurdism, and Experimental Storytelling Relate to Reality*
- Maeve Storti: *A Comparative Analysis of Wartime Sexual Violence in Imperial Japan*

S06 Conference Room, Street Level, Hammond Hall

- Nicholas Benson: *Internship Experience: Cambridge District Court*
- Hannah Blash: *Worcester District Court Probation Department*
- Andrew Woods, Adem Elveren: *The Impact of Military Expenditures on Growth*

S08 Meeting Room, Street Level, Hammond Hall

- Zach Lamb: *Dreams Past the Lens*
- Donovan Meehan: *A Filmmaker's Journey*
- Jonathan Rajotte, Jordan Wasil: *The Unsung Art of Editing*

Break: 11:00 – 11:10 AM | Travel time to reach Session 3 rooms

SESSION 3 | 11:10 AM – 12:10 PM

TECHNOLOGY DEMONSTRATION

Main Lounge, First Floor, Hammond Hall

- Kevin Borges: *Customer Service Robot*
- Nahuel Castroman, Ali Ahmad Asif: *Undergrad Research Project Real Madrid*
- Eric Edwards: *Board Dungeon Delving: The PAX Journey*
- Yaw Koosono: *Real-Time Facial Behavior Analytics Using Edge AI*
- Christian Marsden: *Community Oriented Policing*
- Adam Post, Hunter Whitehead: *How Moving Lights Work and How to Work with Them*
- Caileen Wilson: *Training a Robotic Arm with AI*

POSTER PRESENTATIONS

Main Lounge, First Floor, Hammond Hall

- Ahmad Ali Asif, Mohamed Amine Rasmoudi, Jefferson James, Xavier Aguilar: *Redesign Concord, Mass. Rotary Intersection to Improve Traffic Flow*
- Kevin Borges, Douglas Mata-Sanchez, Roshen Kyewalyanga: *A Glimpse into Robotics Through Micromouse*
- Kevin Borges: *NFC Decoding for Music Selection*
- Sean Butler: *Principles of Location and Fixturing in Milling Machine Work Holding*
- Sid Cheickna Camara: *The Use of Bio-Based Materials in Architecture: Sheep Wool Insulation*
- Jhoary Catalan-Flores: *Tracking Solar Panel Efficiency for Solar Energy System*
- Stetson Daisy: *AI-Driven Picar Using Computer Vision and Object Detection*
- Shantae Espino: *Economic Sustainability of Youth Cheerleading Facilities: Comparing Startup Costs, Return on Investment, and Business Longevity among Small, Medium, and Large Centers*

POSTER PRESENTATIONS

Main Lounge, First Floor, Hammond Hall (continued)

- Miles Ford, Elias Acquaye: *Remote Integration in Construction*
- Rochelle Hebert: *Sustainable Commercial Architecture: Designing for a Greener Future*
- Jamisen Laplante: *Modeling and Simulation of a Structurally Sound Ergonomic Student Desk*
- Andrew Leblanc: *External Interface with Thermometer Sensor Activity*
- Brendan Leblanc: *Engineering Design Principles Applied to Wardrobe Space Organization*
- Ryann McCullough Nezuch: *From Red Carpets to Recommendations: The Changing Landscape of Film Marketing in Response to Streaming and the Pandemic*
- Hossein Mojahed Zadeh, Miles Ford: *Reconfiguration of John Fitch Highway Intersection to Improve Traffic Flow and Safety*
- Juliana Osei Owusu: *Electronic Water Control Device*
- Adam Post, Jeremy Maillet: *Circular Construction: Buildings Designed for Disassembly and Reuse*
- Alisha Praileau: *Evaluating the Impact of Biophilic Workplace Design on Employee Well-being*
- Nolan Sargent, Freddy Soderberg: *Immersive Visualization for Construction Coordination and Risk Mitigation*
- Ali Toprak: *Smarttune: Digital FM Radio with Embedded Control System*
- Oscar Wyspianski, Brian Dillon: *Enhancing Field Accuracy with Augmented Reality in Construction Surveying*
- Madison Ambrogi: *Mitigating Flood Risk Through Wetland (re)construction: Evaluating the Economic and Environmental Impacts on Cape Cod*
- Devin Connery: *A Changing Basin: Land Use, Population Growth, and Precipitation Impacts on Colorado River*
- Emma Daponte, Ian Nano: *Assessing Membrane Repair Capacity in Myoblast Using Dysferlin-dependent Dye Tagging Techniques*
- Jameson Dillon: *Monitoring Fireflies in Gloucester*
- Asher Easter, Dr. Dennis Awasabisah: *Iridium-NSAID Complexes and Their Biological Properties*
- Alexander Falkenhagen: *The Effects of TUDCA on Restoring Dysferlin Protein to the Plasma Membrane in Muscular Dystrophy*
- James Fitzgerald, Omayma (Amy) Taha: *Functional Analysis of DNase II Gene in Chickens Using 5' RACE Protocol to Determine How Dnase Ii β Compensates for Lack of Dnase Ii α*
- Sera Gagnon: *How Meditation Helps Athletes' Prepare for Sport Competition*
- Melissa Guillaume: *Tracing the Past, Healing the Present: Examining Racial Disparities in Healthcare and African American Mistrust Through a Nursing Lens*
- Syriah Houlder, Maximus Ball: *Role of Dysferlin Protein in Membrane Repair in Monocytes: Comparison Between Muscle Cells and THP-1 Monocytes*
- Grace Hope Kentsa: *Investigating How 4-PBA Restores Dysferlin Protein in Muscular Dystrophy*
- Caitlin Kirrane, Julia Arena: *Inter-Rater Reliability of Clinical Measures Associated with Previous History of Lower Leg Overuse Injury in Collegiate Athletes*
- Kaissy Kwakye, Dr. Eric Williams: *Evaluating Therapeutic Drug Candidates to Restore Dysferlin Function in Dysferlinopathy*
- Emily Labelle, Lukas Shell, Jose Ruiz Murillo: *How Chickens Compensate for a Missing Gene*

Tower Lobby, First Floor, Hammond Hall

- Kelly Li, Renee Hess, Syriah Houlder, Kenneth Rivera Lopez: *Genetic Testing for Presence of Extra Exons (X1 and X2) in DNase II Beta in Chicken Cells*
- Kelly Li, Kenneth Rivera Lopez, Renee Hess, Syriah Houlder: *Genetic Testing for Putative Exons (X1 and X2) in DNase II Beta Protein in Chicken Tissue*

- Geybrell Liriano, Dr. Laura Garofoli: *Defining and Measuring Perceived Self Cost in Relation to Empathy and Prosocial Behavior*
- Matthew Mendrella: *Movement Metal and Bass*
- Dylan Mercier: *The Effect of Chemical Chaperones on the Differentiation of Myoblasts in Muscular Dystrophy*
- Ian Nano: *Restoring Dysferlin in T252M Dysferlinopathy Models Using 4-PBA and Assessing Effects on Myoblast Differentiation*
- Olivia Narkevicius: *Crosslinking the Protein Malate Dehydrogenase*
- Emily Pryer, Dr. Peter Staab: *Three-Point Shooting in the NBA*
- Maxwell Riordan: *Smokeless Tobacco Use in Collegiate Baseball Players: Prevalence, Patterns, and Influencing Factors*
- Aliyah Santos: *Clinical and Administrative Workflow in an Interventional Spine Clinic*
- Charles Stevenson, Rohanji Novas: *When Noise Protects and Destroys: an Undergraduate Exploration*
- Mecca Taylor: *My Co-op Experience as a QC Technical Writer*
- Cortney Teague, Ashanti Richards, Egbelis Hernandez: *Identification of Potential Exons X1 and X2 in Chicken DNase II Beta Transcripts*
- Erica Vogel, Elizabeth Kilpatrick: *Utilizing Phytochemistry to Modulate Immune Responses*

Amelia V. Gallucci-Cirio Library, First Floor, Hammond Hall

- Maggie Bourgeois: *Exploring Media Reform and Its Plausibility in American Democracy*
- Kole Broderick: *The Relationship Between College Education and Policing*
- Angelia Caron: *The Impact of Foster Care on Children's Mental Health*
- Zoe Chrisostomides: *Rebuilding Local News Through Broadcast Journalism*
- Gavilan DIVERS: *From Illness to Wholeness: Exploring the Dimensions of Holistic Healthcare and Christian Spiritual Integration*
- Daniel Disessa: *Doorway to My Comfort: Translating Emotion Through Album Design*
- David Diaz Jr.: *Improving the Infrastructure of Puerto Rico*
- Peter Elliott: *Tomorrow's Prometheus': A Novel by Peter W. Elliott*
- David Gambone: *Medicinal Vegetables: Emerging Research on Psilocybin and Cannabis in Mental Health Treatment*
- Andrew King: *Cross Medium Adaptation Study*
- Elizabeth Korj: *Balancing Conformity and Individualism in Game Art Portfolios*
- Adriana Kruger: *Writing for Right: The Women Writers of Fitchburg*
- Paige Levesque: *The Interaction of Government Policies and Chaebols on South Korean Economic Growth in the Post-Korean War Era*
- Chris Martin: *Historical Research for Screenplay on MVP Kicker Mark Moseley*
- Brady McFadden: *Solving "Cain's Jawbone"*
- Thomas Meehan: *Examining the Decline of Consistency in the Marvel Cinematic Universe After the Success of "Avengers: Endgame"*
- PJ Norton: *NIL Era College Athletics: The Significance of Name, Image and Likeness*
- Antonio Perez Jr.: *Cross Threads Culture*
- Jaysa Rosa: *The Endless Cycle: How Interactive Media Loops Cause a Rise in Self-Objectification on Tiktok*
- Andrew Ruggiero: *The Open Canvas*
- Emily Russo: *Past(a) and Present: Exploring Tradition and Innovation in Italian Brand Design*
- Jared Sanville: *A Luminous Script: Decoding Lighting as a Primary Narrative Language in Film*

Lunch for Conference Participants, Attendees, and Families

12:10 – 1:00 PM | S09 Falcon Hub, Street Level, Hammond Hall

Featured Performance: The Fitchburg State University Jazz Band, Directed by Amy McGlothlin

Alto Saxophone: Brandon Rivas-Garcia

Trumpet: Andreus Shultz

Trumpet: Jack Dancause

Trombone: Joseph James

Viola: Grace Mita

Vocals: Olly Durrett

Vocals: Alexis Guillemette

Piano/Viola: Dr. DeMisty Bellinger Delfeld

Guitar: Lucas Leite

Bass: Jarrod Howard

Drums: Micah Marino

12:30 PM — AWARDS / PRIZES



R.A. Salvatore Creative Writing Prizes

Presented by Dean of Arts & Sciences, Sara Levine

- Creative Nonfiction
- Fiction
- Game Narrative
- Poetry
- Script / Play

Undergraduate Research Conference Awards

Presented by Conference Co-chair, Jessica Alsup

- Outstanding Creative Writing Award
- Outstanding Visual Arts / Media Award
- Outstanding Lightning Talk Award
- Outstanding Technology Demonstration Award
- Outstanding Oral Presentation Awards
- Outstanding Poster Presentation Awards

12:40 PM — CLOSING REMARKS



Conference Co-chair, Jessica Alsup

ARTeries Gallery Exhibit

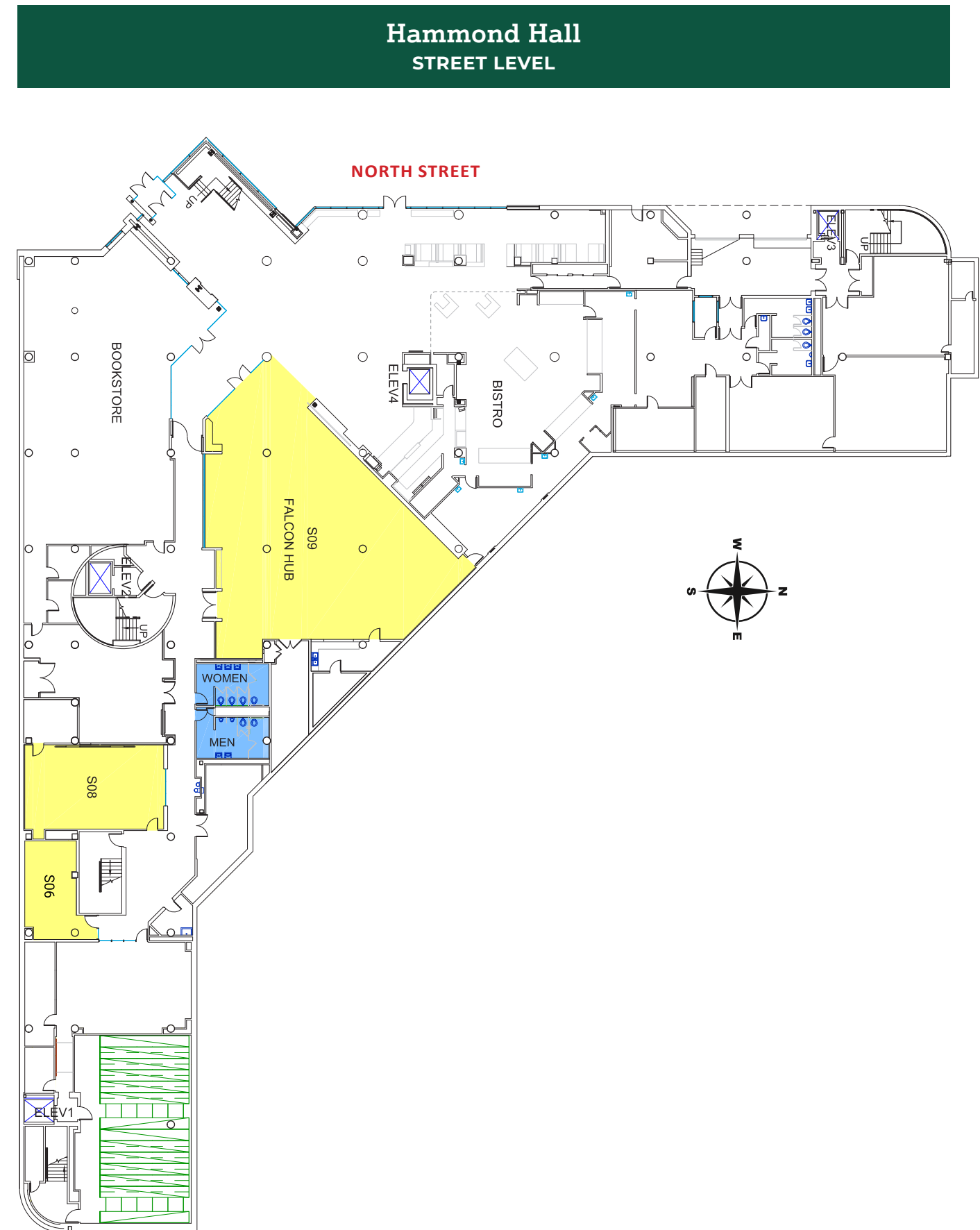
Hammond Art Gallery | Ground Level, Hammond Hall (Last Day of the Exhibit)

ARTeries is an annual student art exhibition organized by the art faculty that showcases work in a wide range of artistic media, including drawing, painting, sculpture, and mixed-media artworks. These students have worked very hard, and we are proud to be able to exhibit their creations.

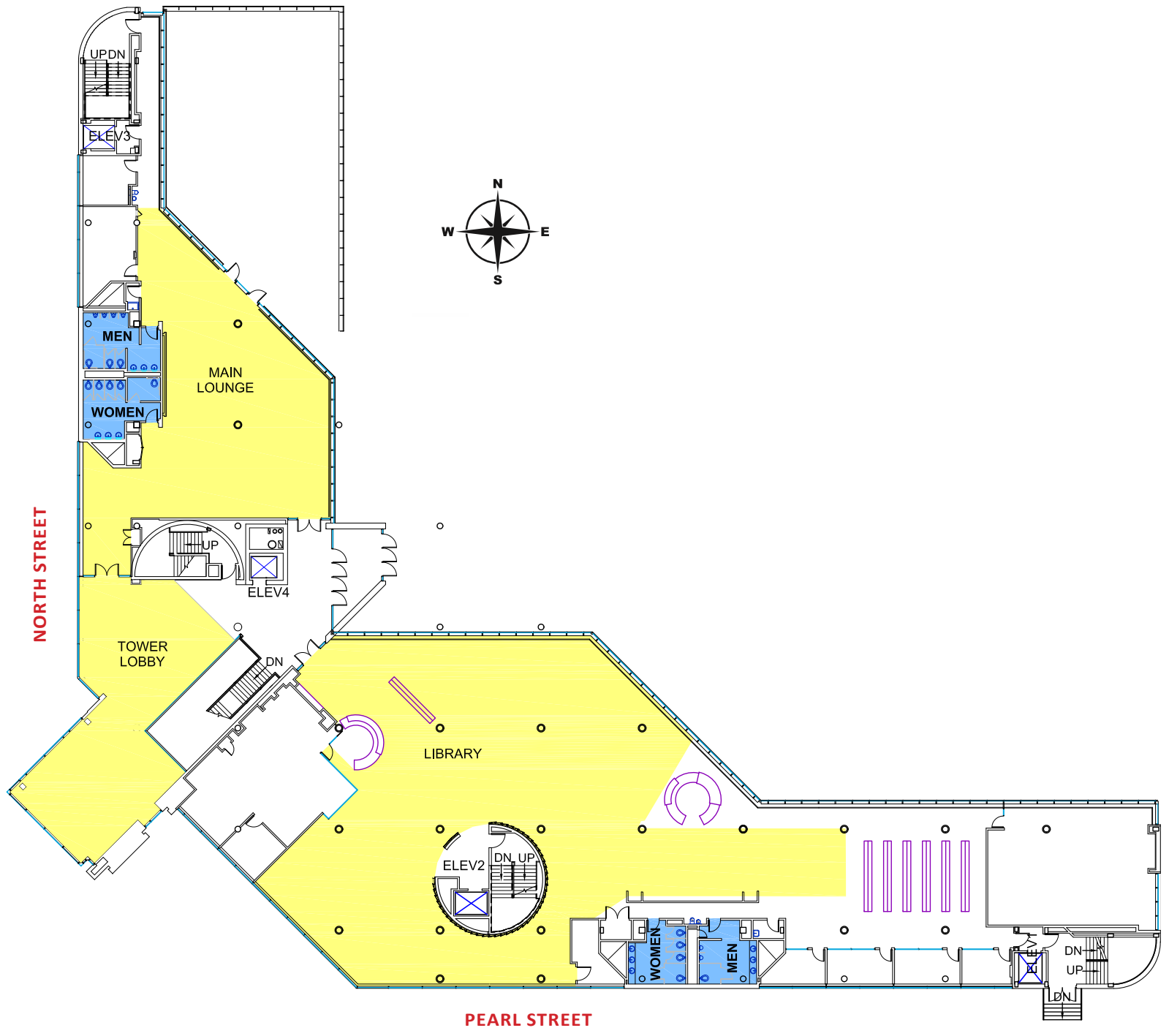
Resource Hub

Tower Lobby, First Floor, Hammond Hall

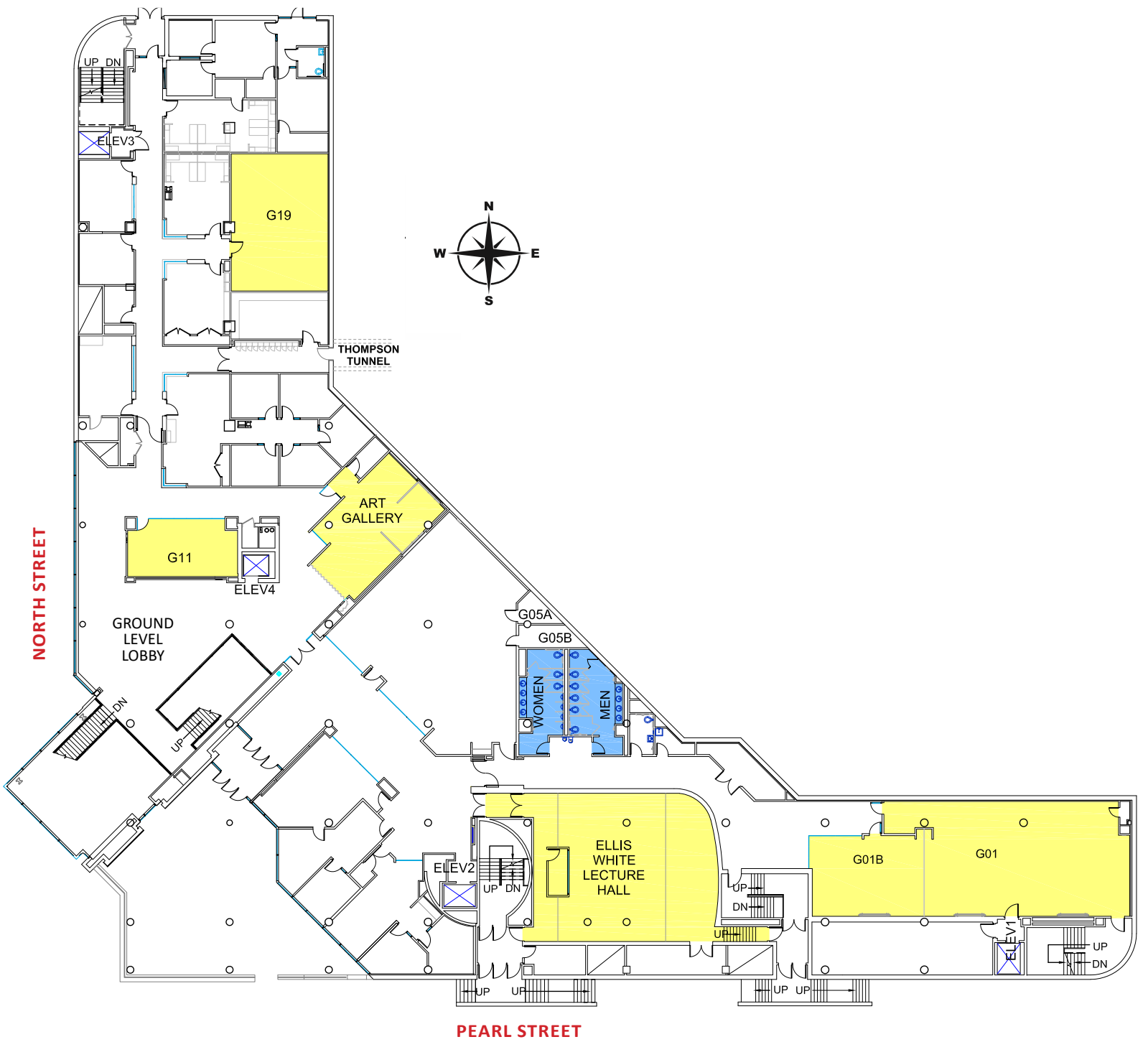
- The Career Services and Advising Center
- Institutional Review Board (IRB) Human Subjects Committee



**Hammond Hall
FIRST FLOOR**



**Hammond Hall
GROUND LEVEL**



Thank you to the faculty sponsors:

Dennis Awasabisah	Michael Hove	Hefei Qiu
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