

9:00 am Gathering: Suber Banquet Hall

9:15 am Welcome: Linda G. Jones

ORAL PRESENTATIONS

Session A: Suber Banquet Hall

Moderator: Joshua Guitar

9:30 am -- COVID-19 modular projections using social and political indicators. Guerin Brown*, Elizabeth Howell*, Matthew Cowart* and Jonathan G. Davis.

9:45 am – Analyzing the repercussions of the Spanish Civil War within childhood. Makenna R. Mellott* (Diana Santiago).

10:00 am – Differences in perception and cognitive processes between those with Autism Spectrum Disorder and neurotypical persons. Brentney A. Clemmons* (Amy Boggan).

10:15 am – Applications of math in sports. Brian M. Free* and Alex P. Barnes.

10:30 am – Take me to cyberchurch: the construction of authority and authenticity in the online religious experience. Erin Tozier* (Joshua Guitar).

11:00 am -- Using bioflavonoids to inhibit CYP1A1 induction by components of cooked chicken. C. Simms Greer* and Jennifer C. Schroeder.

11:15 am – Theatre education: a dramatic guide to creative learning. Almeda M. Higgins* (Zack Vandever).

11:30 am – Dowsing/divining rods-the search for water. Patrick Allen* and Quintavius Williams* (Sandra Page).

Session B: English & Honors Capstones Hatcher Dining Room

Moderator: Ruth Looper

9:30 am -- Altered experience: Black American trauma between mediums in *Beloved* and *The Color Purple*. Kristen L. Brown* (Eloise Whisenhunt).

10:00 am – Margaret Fuller: Her Life, her legacy, and her underestimated role in the literary canon. Rachel Rhodes* (Matt Bruen).

10:30 am – The interconnectivity of mass media, individuality, privacy, and the human psyche. Olivia Still* (Claudie Massicotte).

10:45 am – At the root: a story of violence and survival amongst native American women. Hannah-Marie M. Owens* (Bethann Bowman).

11:00 – 11:30 Q&A of Capstone Presentations

Session C: Rollins Planetarium

Moderator: Steve Morgan (30 minute presentations with breaks)

10:00 am – Journey to a new horizon. Indiana Ayers* (Steve Morgan).

11:00 am – The Moons of the Solar System. Bethany R. Smith* (Steve Morgan).

1:00 pm – Our place in the universe. Indiana Ayers* (Arunava Roy).

Session D: Suber Banquet Hall

Moderator: Jenn Schroeder

1:00 pm – Determining if burnt food can induce CYP1A1 expression in mouse hepatocytes. Carley E. Hiller* and Jennifer C. Schroeder.

1:15 pm – Layers of intimacy: Queering in Jorge Luis Borges's *La intrusa* and homosexuality among *los gauchos*. Matthew I. George* and Kristen L. Brown* (Diana Santiago).

1:30 pm – *Break before Honors Presentations*

1:45 pm – The Impact of Physical Therapy in the Rehabilitation of Concussions. Ansley Coles* (Linda G. Jones)

2:00 pm – Estrogen as a Protective Agent for Neurodegenerative Diseases. Carley Hiller* (Andrea Kwiatkowski).

2:15 pm – Using Nazi data in modern medicine. Savana Megna* (LG Jones).

Session E: Hatcher Dining Hall

Moderator: Johnathan Davis *Overview of the Appalachian Teaching Project*

1:00 pm – The Southern Appalachian Snorkeling Trail: Preserving water quality in Appalachian communities by promoting native fishes. Mallory Downs*, M. Jacob Howington* Co-authors: Caroline Cox, Aubrey Crowell, Hannah Walker, Robert Moser, Darrien Henson, Harrison Scott (JG Davis).

1:15 pm – Connecting volunteerism, science, and community engagement to protect water quality in a southern Appalachian watershed. Elizabeth Howell*, Mallory Downs*, M. Jacob Howington*, K. Floyd* (Johnathan G. Davis and Joseph Pate).

1:30 pm – Discussion

1:45 pm – Comparison of growth rates of Alabama bass *Micropterus henshalli* among three North Georgia reservoirs across two sampling years. Elizabeth M. Howell* and Thomas B. Campbell* (Johnathan G. Davis).

2:00 pm – Assessing the dependency of priority levels of pollution in Chatuge Lake by evaluating nitrite levels. Colton Pritchett* and Mikaila Chappelle* (Amanda Song).

2:15 pm – Preferred microhabitat preferences of mottled sculpin in a southern Appalachia headwater stream. Kelsie A. Floyd*, Mallory N. Downs*, M. Jacob Howington*, Elizabeth M. Howell*, Holden O. Baisden*, Joshua O. Nachtrieb* (Johnathan G. Davis).

2:30 pm – Preferred habitat of Redline darters (*Nothonotus rufilineatus*) from late summer to early fall in a Southern Appalachian headwater stream. Kelsie Floyd*, M. Jacob Howington*, Holden Baisden*, Elizabeth M. Howell*, Joshua Nachtrieb* and Jonathan G. Davis.

Session F: Susan B. Harris Chapel

Moderator: Karen Calloway

1:30 pm – Connections between music theory and creativity. Jacob Trotter*
(Cynthia DeFoor)

2:00 pm – 3:00 Musical Theater

Songs from the Golden Age to the Present

Bree Cauble*, Jazlyn Dingfelder*, Susie Mishkin*, Adriana Mucia*,
Phillia Prior*, Ashley Smith*, Allie Smotherman*, singers
Anita Guss, pianist
Karen Calloway, teacher

Exhibition - Campus Gate Art Gallery

10:00 am - 2:00 pm Senior Thesis Exhibition

Shelby Baker*	Brianna Keith*
Lilly Barlow*	Kelly Kennedy*
Cecilia Biroshchik*	Andrew Rogers*
Sarah Faneuff*	Derika Harpool*
Jennie Williams*	Mark Williford*

4:15 pm Awards Ceremony – Suber Banquet Hall

We thank all of our student participants and faculty sponsors!

**Special thanks go to Abram Miller the designer of our program cover
and the Undergraduate Research Day poster for 2021!**

The Undergraduate Research Day Planning Committee

POSTER PRESENTATIONS

2:00-4:00 pm RCC Commons

Presenters present 3:00-4:00 pm

1. Experiencing study abroad. Alex Venturino* (Diana Santiago).
2. The effects of body art on ratings of personal characteristics and perceptions of employability. Kaleigh A. Foster* and Amy L. Boggan.
3. Seeing what counts: Attentional factors in an estimation task. Heather J. Clark,* Kayli A. Sample,* and Amy L. Boggan.
4. Reading emotions in masked faces. Cathleen R. Chance,* Austin K. Pennington,* and Amy L. Boggan.
5. Can you help me with this assignment? Facilitating academic dishonesty. T.J. Rounsaville*, Tyler Vickers*, and Amy L. Boggan.
6. Views on climate change throughout the 20th and 21st centuries. Emily Gray*, Savana Megna*, Gwentyth Gibbons* and Baishali Ray.
7. Using imaging software to estimate seasonal changes in the polar ice caps. Elizabeth Howell* and Baishali Ray.
8. Seasonal changes in the composition of a fish community of a headwater stream plunge pool. Elizabeth Howell*, Holden Baisden*, Joshua Nachtrieb*, Dylan Nix*, Emily Melendez* (Johnathan G. Davis).
9. Ground vegetation and tree species diversity comparison between upland and semi-wetland sites within Cupid Falls Park located in northern Georgia. Emiley Melendez* and Paul T. Arnold.
10. Analysis of antibiotic resistance in different soil types. Jacob S. Burgess* and Kevin M. Geyer.
11. Microarthropod madness: Soil disturbance and drought using the QBS-ar index. Guerin E. Brown* and Jennifer Rudgers* (Paul T. Arnold).
12. Reaction rates to visual and auditory stimuli in NCAA baseball players. Holden O. Baisden*, Chase E. Webb* and Linda G. Jones.

* denotes student researcher; () denotes faculty sponsor

PANEL DISCUSSION BY YHC GRADUATES

4:30 - 5:30 pm Suber Banquet Hall

Moderator: Amy Boggan

Experience, Insight, and Values in Graduate Research

Panel Participants

Zachary “Champ” Champion graduated from YHC in 2016 with a BA in Outdoor Leadership. Shortly after graduating, Champ pursued his Masters in Social Work at Fordham University. While in NYC, Champ worked at a homeless shelter for men with severe mental illness and in a high school for at-risk students. Champ has recently moved North Carolina to pursue his goal of implementing therapeutic models in a wilderness/experiential setting. Currently, he is working at Crossnore School and Children’s Home, which is a residential foster care agency.

Lauren James graduated from YHC in May 2018 with a B.A. in Interdisciplinary Studies and a concentration in Human Rights and Diversity. She is currently pursuing a J.D. at Mercer School of Law in Macon, Georgia. Since January 2019, she has worked at the Houston County Public Defender’s Office, representing indigent clients in bond hearings, plea proceedings, and revocation of probation hearings. She competes in mock trial competitions for Mercer’s National Trial Team. She serves as the Editor in Chief for Volume 72 of the Mercer Law Review. Her interests include constitutional law, statutory interpretation, and litigation.

Cody Mashburn graduated from YHC in 2017 with a B.S. in Psychology and a minor in Philosophy. Before finishing his degree at YHC, he received an REU (research experiences for undergraduates) fellowship from the National Science Foundation to conduct research at Western Kentucky University. He is currently pursuing a PhD in cognition and brain science at Georgia Tech with a minor focus in quantitative psychology. Cody’s research involves individual differences in human attention, intelligence, and working memory. His work is published in journals such as the *Journal of Experimental Psychology: General*, *Psychological Bulletin*, and the *Journal of Applied Research in Memory and Cognition*.



**Ninth Annual
Undergraduate Research Day**

April 15, 2021

9:00 AM - 5:30 PM