Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously-funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the current Institutes guidelines, which reflect the most recent information and instructions, at https://www.neh.gov/grants/education/humanities-initiatives-hispanic-serving-institutions

Applicants are also strongly encouraged to consult with the NEH Division of Education Programs staff well before a grant deadline.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials.

Project Title: *Data Storytelling*

Institution: William Paterson University

Project Director: Wartyna Davis, David Freestone, and Barbara Suess

Grant Program: Humanities Initiatives at Hispanic-Serving Institutions

Introduction William Paterson University (WP), an eligible Hispanic- and Minority-Serving public institution in Wayne, New Jersey proposes a 36-month humanities initiative to create a new 18-credit minor in data storytelling that will teach students to not only critically consume, evaluate, and interpret data, but also use it to communicate ideas, tell stories, and create new knowledge. Grant funds from the NEH will be used to support the development, implementation, and evaluation of the new minor over three years. The proposed project includes (1) two cohorts of a one-year professional development program for faculty interested in teaching in the minor; (2) revision and creation of 16 elective courses for the minor; (3) four technology-for-the-humanities workshops open to all members of the WP community to prepare faculty to integrate data technologies into the humanities classroom; and (4) initial piloting of eight of the new and revised elective courses. By the end of year three, the minor will include 16 new or revised elective courses, and will be offered to students beginning in the fall of 2024.

Intellectual rationale WP defines data storytelling as the process of creating a story based on data analysis that helps a non-specialist audience to understand the data's insights and, potentially, to use the story to persuade, inform, or in other ways support a strategy or goal. Such "stories" take an array of forms including but not limited to traditional narrative structures, tables, graphs, animations, videos, social media, or multimedia communications. The well-documented effects of narrative transportation — which suggests that getting swept up by a story increases the persuasiveness of the ideas (and data) represented in that story — support the value of developing the skills of data storytelling for all fields of study and a wide range of careers.

Data analyst Lindy Ryan states, "There is a data revolution happening across the globe. From academics to politics, and everywhere in between, the world's stories are being told through their datapoints… All of these visualizations, from the most dynamic to the most static,

need more than just data to make the leap from information representation to resonation. They need a story — something to show, or, more aptly, to 'tell' visually — and finding this tale isn't always obvious when digging through data. It takes exploration, curiosity, and a shift in mindset to move from creating a data visualization to scripting a data narrative."[1] The written and oral communication, critical thinking, problem solving, and ethical judgement skills promoted by the study of the humanities make this shift in mindset possible, and are just what is needed to successfully interpret and communicate the impact of data.

The elective courses revised and created for the new minor will marry the humanities' contributions to understanding human society and cultures with applied data science, which will further inform and strengthen humanities' engagement with local, national, and world issues. Incorporating the analysis and assessment of data such as archival metadata, geospatial data, and oral history transcripts into the humanities classroom will substantially expand WP's current, more traditional humanities course offerings and provide students with concrete experience using and analyzing data sets. By training social science faculty in humanities disciplines including rhetoric, ethics, and creative and critical writing — thereby augmenting the storytelling skills of data science professors and their students — the project will also broaden the reach of the humanities into the social science classroom.

The proposed project will strengthen humanities teaching and learning at WP by (1) adding 16 courses to the curriculum that combine data analysis with humanities-based storytelling skills, and (2) promoting professional development and interdisciplinary collaboration between faculty in the humanities and data sciences who more typically engage in siloed research and pedagogy informed more narrowly by their scholarly discipline. The minor

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[1] Ryan, Lindy. "Data Visualization and Data Storytelling: A Visual Revolution." *Big Data Quarterly*, Vol. 4.1, 2018, p. 41.

will go beyond digital literacy (consumption and evaluation of data) to digital fluency, which means students use digital artifacts to create something new as they formulate humanities-based rhetorically and ethically sophisticated visualizations and stories based on data.

Audience The new data storytelling minor will serve WP's diverse student population. More than 58% of students are non-white, with 33% of students claiming Hispanic heritage. Additionally, more than half of students are among the first generation in their families to attend university. WP expects that the new minor will appeal to a diverse group of students; particularly those in the College of Humanities and Social Sciences, where it will be housed, but also students across the university, who will be drawn to the minor's interdisciplinary offerings. WP estimates that initial enrollment in the new minor in year three of the project will be five, and grow to at least 25 students within the first five years. WP expects that up to 240 students will take the courses revised or created as part of the project.

Sixteen WP faculty members from the humanities and data sciences will also benefit from the project through participation in the project's data storytelling workshop series and the creation or revision of elective courses for the new minor. The entire faculty will have the opportunity to participate in the technology-for-the-humanities workshops.

Content and activities WP's overarching student learning outcome for the minor is that students will learn practical, hands-on skills that require analytical thinking informed by humanities and data science methodologies in order to become more digitally fluent, aware, and ready for a modern data-driven world. More specifically, after completing this minor, students will be able to (1) understand the cultural, political, and ethical implications and the professional and ethical responsibilities of data use through interpreting and evaluating the credibility of data; (2) tell a story about the data with attention to audience, genre, and context (using traditional

narrative, charts, animation, video, art, multimedia communication, etc.); and (3) articulate the skills they have acquired in the minor by engaging in metacognitive reflection that promotes their awareness of how and what they have learned, and of the adaptability of these skills to diverse academic and professional scenarios.

The new 18-credit minor will be housed in the Department of English and include two existing three-credit courses as required core courses: (1) Evidence-Based Living (Psychology 1200), which introduces students to logical thinking and reasoning and how to evaluate the quality of data and evidence, and provides them with hands-on experience in the lab analyzing and visualizing data; and (2) Digital Writing and Editing (English 3600), which will teach students to analyze and write about data, both individually and collaboratively, in digital genres for various audiences. Additionally, students must take four three-credit elective courses, chosen from a list of approved courses. The proposed project will focus on identifying, revising, and creating elective courses for the minor. (See Attachment 9 for a summary of the requirements for the minor and a preliminary list of possible elective courses.)

Faculty Professional Development During years one and two, two cohorts of up to eight faculty members will engage in an in-depth professional development program to prepare them to participate in the new minor by integrating data storytelling into existing or new courses. All faculty will be invited to participate, and interested faculty will submit to the project leadership team a short statement of interest briefly describing the course they are interested in revising or creating. The team will review the proposals and select a cohort of up to eight faculty members with preference given to faculty in the College of Humanities and Social Science, and with an eye toward ensuring that at least half of the courses are in humanities disciplines and that a diversity of disciplines and course topics are represented. Stipends will be offered to the eight

faculty members selected each year.

Faculty will participate in a series of seven half-day workshops focused on revising classroom instruction and updating syllabi. Each workshop will train faculty to use up-to-date pedagogical techniques that allow students to (1) understand the connection between data and the humanities; (2) evaluate the ethical and practical concerns of finding, collecting, and using data; (3) critically analyze, summarize, and infer from data; (4) use and evaluate the rhetoric of graphics and data visualization; (5) use and evaluate the rhetoric of storytelling with data; and (6) employ critically self-reflective writing to support transfer of learning across contexts. In the seventh workshop, participants will collaboratively review and revise syllabi for inclusion in the minor. Facilitators for the workshops will include WP faculty and staff Barbara Suess (English), Sean Molloy (English), David Freestone (psychology), Gamin Bartle (instruction and research technology), and James Miles (digital learning).

Toward the conclusion of each of the two series of workshops, participating faculty will begin revising or creating their elective courses for the minor. As part of the course revision and development process, faculty members will engage in focus groups modeled after WP's successful faculty mentorship program. Through the faculty focus groups, faculty members will sustain the momentum created during the workshops; engage in more informal discussions of data storytelling; support one another through the course revision and creation process; and share lessons learned, what worked, and what did not work. The first cohort will continue to meet with and serve as mentors for the second cohort.

In years two and three, WP will sponsor two technology-for-the-humanities workshops per year to better prepare faculty to integrate data technologies and related rhetorical strategies into the classroom. These will be hands-on, example-based workshops from which faculty will

walk away with the ability to use workshop content with their students. The technology

platforms and tools to be taught will be determined by participants in the professional

development workshops, and may include GIS for the humanities, creating infographics, and/or

using Tableau and SPSS to tell stories. The technology workshops will be facilitated by WP

faculty and staff and/or guest experts from other institutions of higher education, industry, or

government.

Courses The courses to be revised or created will serve as electives for the minor.

Potential courses include Public Engagement of Anthropology; Gendered Technologies; Racism

and Mass Media; Literature and Environment; and Mapping Literature. Faculty members will

design the elective courses to weave in data analysis and effective storytelling practices

throughout. All elective courses approved for inclusion in the minor will include (1) one

substantial project that requires students to find and analyze data and use traditional narrative,

images, and/or media formats to convey the meaning(s) and implications of the data analysis

findings; and (2) one metacognitive reflection that conveys the student's evolving understanding

of what they have learned in the course and of the applicability of the course content to

academic, cultural, and/or professional contexts.

Throughout their time in the program, students will populate a portfolio featuring at least

six of these data storytelling projects and metacognitive reflections, drawn from class

assignments. The Digital Liberal Arts Collaboratory Committee, an existing committee that

oversees WP's Digital Liberal Arts Collaboratory (described in "Institutional Context" below),

will review students' portfolios upon completion of the minor in order to ensure compliance and

to assess quality.

Project personnel Wartyna Davis, acting dean of the College of Humanities and Social

Sciences (COHSS), will serve as NEH project director and lead the project leadership team. During her tenure at WP, she has created the Policy Sciences Lab, introduced online simulations into coursework, served on college and university technology committees, and created the Digital Liberal Arts Collaboratory for the COHSS. As NEH project director, she will ensure that all activities in the work plan move forward as scheduled, and that WP submits updates and reports to the WP administration and the NEH in a timely fashion.

Barbara Suess, professor of English, will serve as program co-director on the project leadership team. She holds a Ph.D. in English from the University of Connecticut and has published two books and numerous articles on Victorian and Modernist Irish and British writers and ecocriticism. She actively integrates technology and rhetorical approaches to research, data, and storytelling in her courses. Suess served as assistant chair of her department and was a member of the Digital Liberal Arts Collaboratory task force.

David Freestone, assistant professor of psychology, will serve as program co-director on the project leadership team. Freestone teaches courses in psychological statistics, research methods, and cognitive science. In planning for the new minor, he has used several of his courses as a testbed for some of the pedagogical techniques related to data storytelling. Freestone is the faculty leader of the Digital Liberal Arts Collaboratory.

Gamin Bartle, director of instruction and research technology, will serve as a member of the project leadership team. She holds a Ph.D. in German language and literature from the University of Virginia and has more than 20 years of experience in instructional technology. She co-founded the WPU Digital Fluency Initiative, is the current co-chair of the University Technology Across the Curriculum committee, and served on the task force that created the Digital Liberal Arts Collaboratory.

James Miles, assistant director of digital learning, will be the final member of the project leadership team. Miles served as the director of WP's language lab for 17 years, has a strong background in digital media production, and spearheaded the move from a traditional learning lab to online learning.

A part-time program assistant in the COHSS will be hired to provide administrative support for the project, including ordering supplies, creating marketing materials, booking rooms and handling logistics for workshops, and assisting the project leadership team as needed.

Faculty for the workshops and course revision/development will be selected according to the process discussed in "Content and activities" above.

External collaborators WP has budgeted grant funds to hire two external experts to lead two of the four technology-for-the-humanities workshops. The workshop topics and technology tools to be taught will be identified by faculty members participating in the workshop series, so WP will wait to identify the experts. These individuals may come from universities, industry, or government, and will lead sessions on technology platforms for which WP does not have in-house expertise.

Institutional context The COHSS houses 12 departments and 16 majors, including humanities programs in Africana-World Studies, English, history, languages and cultures, philosophy, and women's and gender studies. The proposed project is uniquely positioned to fulfill the college mission, which "strives to prepare students with the research, communication, and analytical skills integral to building careers, pursuing advanced academic studies, and cultivating responsible citizenship in an increasingly global and complex world." The college holds an annual large multidisciplinary conference that invites speakers to discuss and explore a pressing issue facing modern society. The proposed project will be supported by the college's

most recent addition, a Digital Collaboratory. The Digital Collaboratory is a lab that provides space, equipment, and support for students and faculty to use 3D printers and computers for digital products, and to hold workshops and meetings on digital topics.

Follow-up and dissemination WP is committed to sustaining the new data storytelling minor over the long term. The project leadership team has designed the minor as a peer-driven effort and expects that the program will continue to build and rebuild the catalog of courses that lend themselves to data storytelling long after conclusion of the grant period. The team's vision is that the faculty focus groups will continue, with the initial group of participating faculty members serving as mentors and guides to the next wave of faculty interested in participating in the minor. Faculty members trained through the professional development program will continue to infuse (1) analyzation of and writing about data into traditional humanities courses, and (2) the humanities (in the form of rhetoric, ethics, and creative and critical writing) into data-oriented social science courses.

All workshop, training, and curriculum materials developed for the project will be freely available to others on dedicated webpages housed on the WP website. The webpages will include the materials used in the workshops, syllabi, and sample assignments, among other items.

At the end of the project, select students will share their data storytelling projects and metacognitive reflections to a group of their peers, faculty, and staff at a new annual event, the Digital Liberal Arts Showcase. Likewise, faculty who take part in the workshop series and develop the initial elective courses for the new minor will present their work and provide an overview of the minor to COHSS faculty at special meetings in spring 2023 and 2024.

Members of the project leadership team and participating faculty members will share project results with colleagues at other institutions through presentations at conferences such as

the annual meeting sponsored by the New Jersey Council of Teachers of English and the International Conference on Humanities, Psychology and Social Sciences.

<u>Evaluation</u> The COHSS assessment coordinator will complete a formative and summative evaluation of the project. For the formative evaluation, the project leadership team will meet at the end of each semester to review progress against project objectives and the work plan and adjust as needed.

To measure faculty satisfaction with the professional development program, the assessment coordinator will develop and administer a survey tool that participating faculty will complete at the beginning of the year and at the conclusion of the workshop series. The assessment coordinator will continue to survey participating faculty at the end of the course revision/development process (year two) and after they implement their revised or new courses.

WP will track several key indicators, including the number of faculty who complete the faculty development workshops, the number of faculty who develop or revise courses for the minor, the number of active courses in the minor, the number of students enrolling in courses in the minor, and the number of students graduating with the minor. As students submit assignments related to their portfolios, WP will track the portfolio quality, judged by the initial grades on the assignment and by the Digital Liberal Arts Collaboratory. To the degree possible, the project leadership team will work with WP's Student Career Development Center to track students' post-graduation job placement. Long-term success will be measured by continued student and faculty engagement in the minor, the addition of new courses, and the quality of students' portfolios.

Attachment 2: Work Plan
Data Storytelling
William Paterson University

Project Activities	Person(s) Responsible	Start/End Dates	Assessment Benchmarks
Professional Development Program – 2 cohorts of 8	David Freestone	7/1/2021 – 6/30/2023	Pre-/post-workshop surveys
Purchase professional development materials	Jim Miles	7/1/2021 – 9/1/2021	
Faculty Focus Groups/mentoring	David Freestone	7/01/2022 – 6/30/2024	
Syllabus revision and creation	8 participating faculty members per year	07/01/2022 – 6/30/2024	
Cohort 1 courses presented to WP Curriculum Committee	Wartyna Davis	01/01/2023 – 6/30/2023	Courses approved by Curriculum Committee
Cohort 1 begins teaching revised and new courses	8 participating faculty members	08/15/2023 – 5/31/2024	Student learning outcomes on course assignments; course evaluations
Technology-for-the-humanities workshops (2 per year)	Gamin Bartle	7/1/2022 – 6/30/2024	Pre-/post-workshop surveys
Formative and summative project evaluation	College of Humanities and Social Sciences assessment coordinator	Fall 2021 – 6/30/2024	
Budget management	Wartyna Davis	7/1/2021 – 6/30/2024	Approval of spending by NEH

Attachment 3: Reading List
William Paterson University
Data Storytelling

Readings marked with an asterisk (*) are proposed shared readings for the faculty workshop series.

Bowen, Tracy, and Carl Whithaus, eds. *Multimodal Literacies and Emerging Genres*. University of Pittsburgh Press, 2013.

Bransford, John D., et al., eds. *How People Learn: Brain, Mind, Experience, and School*. Expanded Edition. National Academies Press, 2000.

Dykes, Brent. *Effective Data Storytelling: How to Drive Change with Data, Narrative, and Visuals*. Wiley, 2019.

Evans, A. et al. *Technology in Action* 2/E. Prentice Hall, 2006.

Fiormonte, Domenico, et al. *The Digital Humanist: A Critical Inquiry*. Punctum Books, 2015.

Gold, Matthew K. and Lauren F. Klein. *Debates in the Digital Humanities*. University of Minnesota Press, 2016.

*Hartley, Scott. *The Fuzzy and the Techie: Why the Liberal Arts Will Rule the Digital World*. Houghton Mifflin Harcourt, 2017.

Hayles, N. Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. University of Chicago Press, 2012.

*Healy, Kieran. *Data Visualization: A Practical Introduction*. Princeton University Press, 2018.

Jukes, Ian., et al. *Understanding the Digital Generation: Teaching and Learning in the New Digital Landscape*. 21st Century Fluency Project, 2010.

Klein, Julie Thompson. *Interdisciplining Digital Humanities: Boundary Work in an Emerging Field*. University of Michigan Press, 2015.

*McCandless, David. *Knowledge is Beautiful*. Harper Design, 2014.

Moss, Mark Howard. *Education and Its Discontents: Teaching, the Humanities, and the Importance of a Liberal Education in the Age of Mass Information*. Lexington Books, 2012.

Nowacek, Rebecca S. *Agents of Integration: Understanding Transfer as a Rhetorical Act*. Southern Illinois University Press, 2011.

*Nussbaumer, Cole. *Storytelling with Data*. Wiley, 2015.

Panofsky, Ruth, and Kathleen Kellett. *Cultural Mapping and the Digital Sphere: Place and Space.* The University of Alberta Press, 2015.

Reyman, Jessica and Erica M. Sparby, eds. *Digital Ethics: Rhetoric and Responsibility in Online Aggression*. Routledge, 2020.

Ridolfo, Jim. *Digital Samaritans: Rhetorical Delivery and Engagement in the Digital Humanities.* University of Michigan Press, 2015.

Samanowski, Roberto. *Digital Humanities and Digital Media Conversations on Politics, Culture, Aesthetics and Literacy*. Open Humanities Press, 2016.

Schöch, Christof. "Big? Smart? Clean? Messy? Data in the Humanities." *Journal of Digital Humanities*, Vol. 2, No. 3, Summer 2013.

Thylstrup, Nanna Bonde. *The Politics of Mass Digitization*. MIT Press, 2018.

Wernimont, Jacqueline, and Elizabeth M. Losh. *Bodies of Information Intersectional Feminism and the Digital Humanities*. University of Minnesota Press, 2018.

William Paterson University
Institutional Profile

Founded in 1855, William Paterson University (WP) in Wayne, New Jersey is a comprehensive public university with more than 10,000 students. WP is designated eligible as both a Hispanic-Serving Institution and a Minority-Serving Institution by the U.S. Department of Education, and is the third most diverse public university of the 32 higher education institutions in New Jersey. In fall 2019, WP enrolled 8,605 undergraduate students and 1,500 graduate students. The University's five colleges (College of Humanities and Social Sciences, College of the Arts and Communication, Cotsakos College of Business, College of Education, and College of Science and Health) support 53 bachelor's degree programs and 24 master's degree programs. WP also offers a Doctor of Nursing Practice and a Doctor of Clinical Psychology degree, and has an academically rigorous Honors College.

WP is a critical resource to the nation's fourth most diverse state. The WP student population is over one-half minority and over half first-generation, with one-third of students identifying as Hispanic and more than one-quarter as African-American. In fall 2019, the incoming class of first-year students was 35.8% Hispanic, 27.9% African-American, 24.8% White, and 11.5% other races or multi-racial. WP achieved eligibility status as a Hispanic-Serving Institution in 2014, and achieved eligibility status as a Minority-Serving Institution in 2018.

The University's nearly 400 full-time faculty are highly distinguished and diverse scholars and teachers, including 41 Fulbright scholars and two Guggenheim Fellows, and recipients of numerous other awards, grants, and fellowships. During the 2018–19 academic year, faculty received or were nominated for 281 awards, honors, and fellowships; produced 537 books, book chapters, conference proceedings, and articles in journals, and 195 artistic artifacts/events including performances, productions, and exhibitions; and gave 489 lectures, presentations, and workshops at academic conferences and other settings.

The humanities at WP are housed in the College of Humanities and Social Sciences, which has 12 departments and 16 majors. Approximately 75 of the college's faculty members teach in humanities disciplines. Humanities major and minor programs are offered in Africana-world studies, Asian studies, English, history, languages and cultures, Latin American studies and Latino studies, liberal studies, philosophy, and women's and gender studies. The College of Humanities and Social Sciences is a supportive, student-oriented learning community that values civic engagement, global awareness, justice, and diversity, and inspires students to be communicators, problem solvers, and critical thinkers. Extensive opportunities for student research, internships, study abroad, and hands-on learning are incorporated into the academic experience. Through the summer Aspire program, students are provided the opportunity to engage with employers in fields relating to the humanities and social sciences.

Attachment 9: Supporting Documentation
Data Storytelling Minor, William Paterson University

Curriculum requirements

Core required courses (6 credits)

Evidence-Based Living (PSY 1200)
Digital Writing and Editing (ENG 3600)

Electives (12 credits)

Students must complete an additional four elective courses (12 credits). No more than two courses can simultaneously fulfill the minor requirements and requirements for the student's major.

Each course accepted as part of the minor will be assessed by the grant committee and must incorporate the following: (1) investigations of the ethical responsibilities of data use within cultural and political contexts; (2) the identification, evaluation, and analysis of data/source documents; and (3) "storytelling," or the creation of creative and critical projects covering the data/source documents studied in the class; these projects will take the form of traditional narrative, charts, animation, video, art, or multimedia communications, and will be developed with attention to the rhetorical strategies of audience, genre and context.

As such, each course in the minor – whether a sociology course focused on media and war or a literature course on ecocritical theory and environmental literature or a philosophy course on gendered identities – will foster a deeper understanding of human society and cultures that, moreover, is informed by data science.

Possible elective courses include (WPU expects that many of these courses will be revised as part of the NEH-funded grant project):
- Racism and Mass Media (Africana World Studies 2070)
- Gendered Identities (Philosophy/Women's and Gender Studies 2330)
- Narrative Identities and Philosophical Methodologies (Philosophy ####) [Proposed]
- Mapping Literature (English 3111) [Proposed]
- Sociology of Media and War (Sociology ####)
- Public Engagement of Anthropology (Anthropology 3011)
- Literature and Environment (English 3270)
- Digital Rhetoric (English 4040; currently under review)
- Language and Technology (English 2020)
- Technology in World History (History 2220)
- Technology and Society (Communication 4640)
- LatinX Testimonios (Women's and Gender Studies, Latin American and Latino Studies 3360)
- LatinX Politics in the United States (Political Science 2290)

Portfolio Review (0 credits)

Six data storytelling projects and six metacognitive reflections to be submitted to a portfolio over the course of the minor.

Each course in our minor includes one substantial project that requires data analysis and that uses traditional narrative, images, and/or media formats to convey the meaning(s) and implications of the data analysis findings, and one metacognitive reflection that conveys the student's (evolving) understanding of the applicability of the course content to academic, cultural, and/or professional contexts. The portfolios will be reviewed by the Digital Liberal Arts Collaboratory Committee at the end of each academic year to ensure compliance and assess quality.

WILLIAM PATERSON UNIVERSITY
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF PSYCHOLOGY
COURSE OUTLINE

1. **Title of Course and Course Number:** Evidence-Based Living
   PSY 1200 (3 Credits)

2. **Course Description:**

In order to make informed decisions, one must be able to think critically to evaluate evidence and arguments. This course promotes personal well-being by introducing students to logical thinking and reasoning, as well as how to evaluate the quality of data and evidence. Students will learn and practice initiating and maintaining constructive discussions with others. Different types of evidence (anecdotal, observational, experimental) and their relative merits will be discussed. The overarching goal of the course is to enable students to think critically about their life decisions in a variety of domains (financial, health, personal) and come away with practical resources for use in their own lives. These skills will be extended to foster a deeper understanding of diverse viewpoints in the world. The interdisciplinary nature of this course provides a practical foundation for a variety of disciplines, as well as real-world applicability.

3. **Course Prerequisites:** None

4. **Course Objectives:**
   This course aims to:

a. Enable students to think critically about their life decisions in a variety of domains (e.g. financial, health, personal) and develop a plan for making informed decisions.

b. Prepare students to recognize and correct biased thinking so they can make normative decisions.

c. Empower students to critically evaluate evidence and logic in order to determine the validity of a claim.

d. Prompt students to listen reflectively and with sympathy to diverse viewpoints.

5. **Student Learning Outcomes:**

Course-specific SLOs
The course is designed to *introduce* students to basic reasoning, critical thinking, and empirical thought. Upon successful completion of the course, students should be able to:

   a) Distinguish between different types of logical arguments and their conclusions, and apply this analysis to real-world decision making.

b) Formulate arguments for or against a position, distinguish between criticizing an argument and criticizing a person, and consider opposing viewpoints.

UCC Area 1 SLOs
Students will be able to:

a) Identify and avoid common cognitive biases, improving their physical, emotional, social, and financial well-being, and improving life decisions (SLO 1a, b).

b) Create a plan of action about a decision in their life (e.g. what type of car to buy, what workout plan to implement, how to allocate money, etc.) that is justified by evidence (SLO 1a, b, c).

c) Use critical thinking in order to promote his/her own wellbeing, and identify the relationship between wellbeing and the different environments (physical health, mental health, social relationships, financial well-being) (SLO 1d).

d) Recognize what type of evidence is considered valid in different social and cultural environments (SLO 1d).

6.   Topical Outline of Course Content: Each professor tailors the order of topics and depth of coverage according to student progress and textbook outline. However, a generic topical outline may be as follows:

I.   Foundations: Justification and Knowledge
   a. A brief history of ways of knowing and related terminology, such as: justification, belief, rationalism, empiricism, relativism, absolutism, authority, falsifiability, parsimony, skepticism, pragmatism; how ways of knowing determine our decisions, which affect wellbeing (SLOs 1a, 1b).
   b. Types of evidence: reflective, anecdotal, observational, experimental; how social and cultural factors affect what counts as evidence; connecting evidence with real life decisions (SLOs 1a, 1c, 1d).
   c. Logic and argumentation: intuition, deduction; recognizing valid and invalid arguments; connecting logic with life decisions (SLOs 1a, 1 c).

II.   Psychology of Critical Thinking
   a. Cognitive processes: intuitive vs. deliberative thinking; how different cognitive processes underlie planning and decision making (SLOs 1a, 1b, 1c).
   b. Intuitive thinking biases, such as: availability heuristic, framing effect, mere-exposure effect, person-who, thinking and how they apply to financial, health, and ethical decisions (SLOs 1b, 1c).
   c. Evidence evaluation biases, such as: confirmation bias, belief bias, experimental bias, illusory correlations and how they apply to financial, health, and ethical decisions (SLO 1b, 1c).

III.   Applied Empiricism
    a. Data exploration: frequencies, averages, correlations, comparing groups; interpreting data in order to make evidence-based decisions (SLOs 1a, 1c).
    b. Graphing: histogram, bar, scatterplot; reading graphs in order to make evidence-based decisions (SLOs 1a, 1c).
    c. Applied scientific thinking: using data analysis and reason to answer a real-life empirical question and develop a personal plan (e.g. financial, health, social plan) (SLO 1c).

IV.   Applied Argumentation
    a. View-point diversity: understanding different moral and political world-views; preference for different ways of knowing depending on the environment which can affect decisions and wellbeing; application to financial, ethical, health domains (SLOs 1b, 1c, 1d).
    b. Considering arguments from opposing perspectives; how to have a conversation with someone you disagree with (SLO 1d).

7.   Guidelines/Suggestions for Teaching Methods and Students Learning Activities

Various teaching tools can be used including lectures, debates, video clips, projects, guest speakers, interviews, websites, and discussions. Students may complete an empirical assignment in which they analyze a dataset to answer a research question. Students may be asked to develop a plan for addressing a life decision based on justification, while addressing barriers they may face.

8.   Guidelines/Suggested for Methods of Student Assessment (Student Learning Outcomes)

Multiple methods of assessment can be employed to evaluate student learning outcomes. Response essays are useful in evaluating the development of evidence-based thinking skills. Quizzes may be used to test for understanding of basic terminology. A hands-on data-analysis project is suggested to evaluate competence in selecting and interpreting data appropriate for answering a specific question. Students may be asked to write about or verbally describe different arguments for or against a debate proposition. Short writing assignments may be used to prompt students to respond to readings or discussion topics. Students may be required to apply evidence-based thinking to contemporary issues or to develop their own evidence-based life plans or to keep a journal about evidence-based thinking issues they face within their social, cultural and/or economic environment.

Examples of specific assignments that address the Area SLOs:

A. Write a plan for addressing a life decision based on justification, referring to material we have covered, and identify specific goals that will improve judgments and decisions in

everyday life. Discuss the physical, emotional, social or financial aspects of your plan to become an informed decision maker. Describe what evidence-based thinking means in your life plan. Describe barriers or impediments to evidence-based thinking. Implement your plan or project. (This assignment addresses all four Area One SLOs, but especially addresses SLO 3.)

B. Case studies: Write an analysis of a provided real-life question. Identify and describe the arguments for and against the proposition, using one or more type of justification. Identify varying points of view of those involved. Develop a proposed course of action for uncovering further justification for the different sides of the argument. Explain whether the question can be addressed using any or all of the different types of evidence, and what potential counter-arguments could be raised. (This assignment addresses all four Area One SLOs, especially 2 and 4.)

C. Role-play/debate case studies: Take the position of one of the individuals (or groups or communities) in a case study. Come to class with some prepared notes identifying the arguments and data in support of a position. Students will be divided into different roles and will come to class to debate the dilemma from a particular point of view. (The assignment addresses all four area SLOs but especially addresses 1, 2 and 4.)

9.   Suggested Texts:

As this course is interdisciplinary, it is recommended that the instructor pull from a variety of texts and sources. Suggested sources are listed by topic area.

Foundations: Justification and Knowledge
Nagel, J. (2014). *Knowledge: A very short introduction.* Oxford University Press.

Psychology of Critical Thinking
Stanovich, K. E. (2012). *How to think straight about psychology*, 10th ed., Pearson.

Up-to-date scholarly materials (websites, essays, videos, podcasts), such as:
TED talk on rational thinking and biases
    https://www.ted.com/talks/dan_ariely_asks_are_we_in_control_of_our_own_decisions

Applied Empiricism
Wheelan, C. (2014). *Naked statistics: Stripping the dread from the data.* Norton.

Up-to-date scholarly materials (websites, essays, videos, podcasts), such as:
Website covering very basic statistics https://www.shmoop.com/basic-statistics-probability/

William Paterson University
College of Humanities and Social Sciences
Department of English

Course Outline

1. Title of Course and Course Number: Digital Writing and Editing, ENG 3600. 3 credits.

2. Course Description:
This course focuses on designing and creating content for digital spaces. Students will learn to analyze and to write, both individually and collaboratively, in digital genres for various audiences. Students will explore methods of writing and editing for online publication, from site architecture analysis and design strategies to content development and line editing. Students will understand how the arrangement of content and the choice of digital genre impact writing effectiveness, and they will learn to use editing strategies and tools employed by professional writers in a wide range of digital situations. This course is UCC Writing Intensive and UCC Technology Intensive.

3. Course Prerequisite: ENG 1100

4. Course Objectives:
   a. To examine concepts of information literacy across public digital spaces.
   b. To explore principles of writing and editing as they apply to digital spaces, including the theories underlying the development of successful writing and editing for online consumption.
   c. To explore concepts of writing and editing for professional and social environments.
   d. To examine the ideas of "participatory culture" and the circulation of digital text so that it becomes "spreadable" or viral in its effect.
   e. To explore and use technologies for writing and editing that contribute to increased literacy and audience engagement.

5. Student Learning Outcomes

Course-Specific Student Learning Outcomes
Students will:
   a. Develop knowledge about concepts of information literacy across public digital spaces.
   b. Understand principles of writing and editing for digital spaces and develop knowledge about theories of successful writing and editing for online consumption.
   c. Demonstrate knowledge of concepts and practices of digital writing and editing.
   d. Understand the professionalism and the ethical responsibility involved in digital writing, considering the potential viral impact, vulnerable platforms, and frequent circulation or manipulation of text and context in digital spaces.
   e. Demonstrate knowledge of and the ability to use technologies for writing and editing appropriate to the needs of audiences and to the expectations of workplaces, social systems, and academic contexts.

UCC Writing Intensive Outcomes

Students will:

a. Demonstrate an understanding of principles, theories, concepts and practices of writing and editing through writing-to-learn strategies, including frequent brainstorming, daily free-writing, in-class writing and editing exercises, weekly responses to reading, and weekly discussion reflections. Within projects that students will produce (the digital equivalent of 15–20 pages of polished written content in 3–4 major written projects, each with multiple drafts involving peer review and instructor feedback), embedded recursive writing and editing activities and systematic reflection of students' own learning will occur **(WI Outcome W1)**.

b. Demonstrate knowledge of the uses, influences, contexts, and means of delivery for digital writing and editing, by developing analysis requiring synthesis and integration of sources, course texts, and other resources, and through documentation of sources, using citations, paraphrasing, and quotation. Students will engage in extensive analytical writing in assignments with multiple drafts, including instructor and peer feedback on drafts. Students will also practice extensive digital revision and editing in weekly in-class or homework writing assignments **(WI Outcomes W1, W2, W3).**

c. Demonstrate knowledge about the impact of writing and editing in various digital environments, by developing researched, thesis-driven essays, and adapting researched information to convey information in digital platforms for various audiences and contexts **(WI Outcomes W1, W2, W3).**

UCC Technology Intensive Outcomes

Students will:

a. Demonstrate an understanding of technological concepts, systems, and operations as integral to writing and editing for digital spaces, as well as the impact of these technologies and their use in targeting various audiences for informational or persuasive purposes **(TI Outcome T1).**

b. Demonstrate an ability to interface with technologies used to convey information, present data, increase digital literacy, and influence understanding for a variety of audiences through the use of those technologies in writing and editing practices, such as social media platforms, info-graphic generation programs, crowd-sourced and digitally collaborated document development, and other public, digital spaces for information exchange, both regulated and open. Such technologies might include, but are not limited to web-based platforms, mobile applications, and digital interfaces, such as Google Drive and other file sharing technologies; Weebly, WordPress, or other web-based consumer platforms; Canva or similar design-based infographic development tools and applications; Padlet, Corkulous or other applications for knowledge organization and dissemination; utilization of video storyboarding or content uploading sites such as Instagram stories or TikTok, for example **(TI Outcomes T2, T3).**

c. Demonstrate an understanding of technological document creation through the study of concepts and practices in writing and editing, including the ability to use a range of technological approaches common to digital documentation, and demonstrate the ability to advance to more sophisticated approaches in subsequent assignments. Students will develop content strategy and analyze information architecture for digital spaces, and learn methods of digital editing techniques for web-based documents and applications. Students might use such applications as Google Drive filesharing for collaborative work,

and Google Docs, Sheets, and Slides for presentations of technological sophistication; selected applications such as EverNote for information organization and collaboration; and comprehensive use of the technologies common in Microsoft Suite's Word, PowerPoint, and Excel **(TI Outcomes T1, T2, T3).**

d. Demonstrate an understanding of the impact of technology on writing and editing in digital spaces, not only on the interpretation and circulation of information by and for consumers of that information but also on the ethical use and responsibilities for which writers and editors of public information are accountable. Students will demonstrate this through analysis of case studies and issues, and through the demonstrated use of ethical, responsible practices of writing and editing in course assignments **(TI Outcomes T3, T4).**

6. Topical Outline of the Course Content:

- Principles of effective writing and editing, from global to local practices
- Adapting the writing mindset to digital writing spaces
- Ecologies for digital writing
- Integration of text, design, and code for rhetorical effect
- Theories, concepts, and practices of digital writing and editing
- Information literacy in digital spaces and the technologies that afford/constrain it
- Strategies and techniques for effective writing and editing for various audiences, contexts, and purposes
- Universal or master narratives and persuasive themes, content and technological signatures, audience resonance, and the effect of personal digital lenses
- Subjectivity, manipulation, ethics, and responsibility in digital writing and editing
- Strategies and techniques for the production of digital content, using various technological platforms and applications and including typical editing procedures

7. Guidelines/Suggestions for Teaching Methods and Learning Activities:

- Class discussion
- Lecture
- Writing-to-learn activities
- Online digital writing assignments
- Web site content development and textual design, video and/or visual textual projects
- Collaborative project-based learning
- Researched essays or multi-modal assignments, involving multiple drafts and peer and instructor feedback during the writing process
- Electronic portfolio development

8. Guidelines/Suggestions for Methods of Student Assessment:

- Quizzes
- Oral presentations
- Reading analysis, response essays, and reflection writing
- Concept mapping assignments
- Evaluation of web site content development and textual design, video and/or visual textual projects

- Evaluation of researched essays
- Digital project evaluation
- Electronic portfolio review

9. Suggested Readings, Texts, Objects of Study:

Hicks, Troy. *Crafting Digital Writing: Composing Texts Across Media and Genres*. Heinemann, 2015.

Jenkins, Henry, et al. *Spreadable Media: Creating Value and Meaning in a Networked Culture*. NYU Press, 2013.

National Writing Project (with DeVoss, Danielle, Elyse Eidman-Aadahl and Troy Hicks). *Because Digital Writing Matters: Improving Student Writing in Online and Multimedia Environments*. Wiley, 2013

Pullman, George. *Writing Online: Rhetoric for the Digital Age*. Hackett Publishing, 2016.

Williams, Joseph M. and Joseph Bizzup. *Style: Lessons in Clarity and Grace*, 12th Ed. Pearson, 2016

10. Bibliography:

Alexander, Jonathan, and Jacqueline Rhodes. *On Multimodality: New Media in Composition Studies*. NCTE Press, 2014. 1–10

Baron, Dennis. *A Better Pencil: Readers, Writers, and the Digital Revolution*. Oxford University Press, 2009.

Brooke, Collin Gifford. *Lingua Fracta: Towards a Rhetoric of New Media*. Hampton Press, 2009.

Delagrange, Susan H. *Technologies of Wonder: Rhetorical Practice in a Digital World*. Computers and Composition Digital Press, 2011.

Eyman, Douglas. *Digital Rhetoric: Theory, Method, Practice.* University of Michigan Press, 2015.

Gruwell, Leigh. "Wikipedia's Politics of Exclusion: Gender, Epistemology, and Feminist Rhetorical (In)action." *Computers and Composition* 37 (2015): 117–131.

Haas, Christina. *Writing Technology: Studies on the Materiality of Literacy*. Routledge, 1996.

Jenkins, Henry, Mizuko Ito, and Danah Boyd. *Participatory Culture in a Networked Era: A Conversation on Youth, Learning, Commerce, and Politics*. Polity Press, 2016.

Jones, Rodney, and Christoph Hafner. "Mediated Me." *Understanding Digital Literacies: A Practical Introduction*. Routledge, 2012.

Koltay, Tibor. "The media and the literacies: Media literacy, information literacy, digital literacy." *Media, Culture & Society* 33.2 (2011): 211–221.

Kress, Gunther. "Gains and Losses: New Forms of Texts, Knowledge, and Learning." *Computers and Composition* 22.1 (2005): 5–22.

Lauer, Claire. "What's in a Name?: The Anatomy of Defining New/Multi/Modal/Digital/Media Texts." *Kairos: A Journal of Rhetoric, Technology, and Pedagogy* 17.1 (2012).

Leckie, Morgan. "Undo It Yourself: Challenging Normalizing Discourses of Pinterest? Nailed it!" *Harlot*, (October 2015) 32–47.

Llinares, Dario, Neil Fox and Richard Berry, Eds. *Podcasting: New Aural Cultures and Digital Media*. Palgrave MacMillan, 2018.

Ng, Wan. "Can we teach digital natives digital literacy?" *Computers & Education* 59.3 (2012): 1065–1078.

Selber, Stuart. *Multiliteracies for a Digital Age*. Southern Illinois University Press, 2004.

Shipka, Jody. *Toward A Composition Made Whole*. University of Pittsburgh Press, 2011.