

ENGL 421-DIST designing a technical writing service course for a diverse student population

ALLEGRA W. SMITH | PURDUE UNIVERSITY

MY

TEACHING



VALUES

NETWORKED EXPERTISE AUTONOMY & SELF-DIRECTION PRACTICE THROUGH PLAY

BUT ALLEGRA what does this even look like?

NETWORKED EXPERTISE

Students build an archive of resources through learner-led presentations throughout the semester

Group Google Docs enable collective knowledge construction and remove barriers to classroom participation

Online and F2F students are **subject matter experts** in their disciplines and other skills; they consult each other with questions first before me

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ENGL 306 File Edit V	WP2 Interview Que	estions
~ @ ?	100% - Normal text	· Playfair Dis · 14 · B Z
	1	 What is your current job title? What is your current job title? How long have you worked in this What did you major in during coll Did you carn any additiona Did your degree prepare you to w Are there opportunities for advan What are your professional/personal yersonal goals How could these opportunities

- · Are there opportunities for advan
- What advice would you give stude
 What kinds of courses, interpreparing you for this posi
- · What made you want to enter this
- Do you hope to stay in this field, o another field?
- If you could change one thing abo

Team Slytherin

- Did you attend university
- What was your courses university)?

AUTONOMY & SELF-DIRECTION

Developing students' ability to **pose their own questions** and design methods to seek answers to them

Making assignments applicable to disciplinary contexts through crafted scenarios and open-ended deliverables

Encouraging reflection and selfawareness of writing process: what conditions or resources do you need to produce your best work?



PRACTICE THROUGH PLAY

Building technology skills with both industry-standard software and free, open-source programs

Offering low-stakes opportunities to try out genres and tools first, before applying knowledge to public or client projects

Removing barriers to access by providing flexible deliverables and/or deadlines

MOON POTLUCK*

ALL OF THE FUN WITH 16% OF THE GRAVITY!



A SATELLITE DELIGHT!

January 1, 2018 · 8:00 PM MST (Moon Standard Time) 4242 Neil Armstrong Way. Sea of Tranquility *BYOO (Bring Your Own Oxygen)

ENGL 421 TRANSLATING THIS PHILOSOPHY INTO THE DESIGN OF A SERVICE COURSE FOR NON-ENGLISH MAJORS

LEARNING OUTCOMES

1: Problem-Solving | Use technical writing theories and approaches to analyze and solve problems individually and in teams.

2: Technical Communication | Communicate complex technical information, processes, and procedures via a variety of media, genres, technologies, and presentations to a range of audiences and stakeholders.

3: Audience & Genre | Adapt written genre conventions and expectations to both technical and non-technical audiences with changing organizational needs.

4: Research | Apply primary and secondary research methods and strategies to produce technical documents.

5: User-Centered Design | Demonstrate awareness of both the technical and human needs of users, paying attention to accessibility, cultural diversity, and global sensitivity.

6: Data Storytelling | Interpret, contextualize, explain, and visualize data sets in specific rhetorical contexts or problems.





THE CHALLENGE

- Meet learning outcomes
- Contend with poor student buy-in for a required course outside of their major
- Create learning experiences applicable for a broad range of students
 - Computer science and cybersecurity
 - Public health and pre-med
 - Engineers of all sorts (aerospace, mechanical, etc.)
 - Aviation and flight tech
 - Also two English education majors???



ADDITIONALLY this class was taught online during the summer of COVID-19

FOUR MODULE FORMAT



CORRESPONDENCE

build understanding of emails, memos, letters, and their conventions



GROUP PROPOSAL

collaborate in disciplinary teams to respond to an RFP



DOCUMENTATION

respond to user needs by creating and testing an instruction set



TECHNICAL DESCRIPTION

design a fact sheet or schematic combining visual and textual information

1: CORRESPONDENCE





The average desk worker spends 28% of their day on email. Let's make sure we know how to write messages that are clear, concise, and rhetorically savvy.

- Respond to a scenario
- Select appropriate correspondence genres
- Justify choices

SCENARIO EXAMPLES

- 1. You are the technical manager of an internet design startup, apologizing to a client for a website maintenance issue.
- 2. You are the project manager of a civil engineering firm, responding to the complaints of a local woman living in the area of a wetlands restoration project.
- 3. You are the quality control supervisor of a shipping company, delivering bad news to a client about a mechanical issue causing a major shipping delay.



Aero Coast Quality Control Team 2206 Maple Avenue, Suite 301 Vienna, VA 22183 815-301-8821 phone / (815)-301-8821 Fax

June 26, 2020

Richard Winstone Global Widget Freight 2931 Mission Drive Fort Worth, Texas 76105

Dear Mr. Winstone,

I am contacting you with regard to your most recent contract with Aero Coast for a structural re-design of the interior of your aircraft with custom racks to ship mini-widgets overseas. The prescheduled flight path destined for Global Widgets Freight Hangar located at Fort Worth Meacham International Airport has been delayed. While en route the aircraft was grounded in the northeast because the emergency light lens covers replaced in your aircraft during the re-design did not meet FAA regulations. The pilot has notified me that the aircraft will not be permitted to taxi for take-off until this issue is resolved. An internal review has determined that this oversight was not identified during the final inspection by our inspector who signed off on the completed job.

We have contacted an FAA certified aircraft mechanic local to the airport where your aircraft is grounded to replace the emergency light lens covers with ones that meet FAA regulations. Unfortunately, the earliest he can complete the job and get an FAA inspection complete is in 24 hours, delaying the arrival time in Fort Worth by a day. While our error has led to an unfortunate outcome, I hope that we can continue to serve Global Widget Freight in the future. At Aero Coast, we are responsible for making sure all of our tailored designs for aircraft meet the regulations set by the FAA. I understand how the mistake leading to the delay in delivery potentially impacts your business. I would like to personally apologize on behalf of Aero Coast for the actions that led to this unfortunate outcome and assure you that necessary steps have been taken to prevent delays such as this from occurring again. Also, Aero Coast will gladly reimburse you for all the extra expenses incurred on your aircraft at the airport while it was grounded.

Thank you again for being a valued customer. We look forward to serving you again soon. In the meantime, please contact me if you have any questions or concerns

Sincerely,

Jared Braden

| Aero Coast | Quality Control Supervisor | Braden4@aerocoast.com | 815-301-8821



2: GROUP PROPOSAL





Working in dispersed teams is an important skill for success especially in light of COVID-19. So is making a clear pitch for a project or funding!

- Outline a project description, team credentials, methods, timeline, and budget
- Conduct research to support an argument

SCENARIO EXAMPLES





AERO/ASTRO ENGINEERING

Pitch an experiment under 200 pounds to be sent to the International Space Station for a relaunch of NASA's "Getaway Special" program

HEALTH & TECHNOLOGY

Reimagine Walt Disney World's onboarding and offboarding procedures for its attractions during COVID-19, to protect guests and cast members

AVIATION & MANAGEMENT

Respond to a billionaire investor's request for bids for personalized management and private charter services for his fleet of luxury aircraft



AND YALL. the results were incredible. read them on my website.



WHY THIS WORKED

- Targeted scenarios that corresponded with the mix of majors in the class helped connect with students' disciplines and spark their creativity
 - Aerospace and mechanical engineering, public health, aviation, (English) education, computer science and cybersecurity
- This model can be adapted to any institutional context as I build a repository of scenarios that can be shared and modified

3: DOCUMENTATION





Documentation is the workhorse of technical writing. It doesn't just mean instructions—it guides, instructs, teaches, and supports the work of others.

- Respond to a user need by creating documentation
- Apply concepts of usercentered design
- Practice user testing



AERODYNAMICS ANALYSIS IN MATLAB

An engineering student created a 22-page reference for others in his program to use

SECURING YOUR INTERNET

A cybersecurity student designed a guide for protecting and controlling a home wifi network

ADOBE INDESIGN HACKS

A professional writing student taught classmates how to remove the background from an image

4: TECHNICAL DESCRIPTION





This project leverages the research, writing, and design skills that students have developed throughout the semester to educate the public.

- Synthesize complex information for an unfamiliar audience
- Use software to create a userfriendly design



By Nicholas Masso

The EARN-IT act is threatening our online privacy. What can you do about it?

What is Encryption?

Encryption is the process of turning data into a code that is only able to be read by the sender and the recipient. This prevents hackers and third parties from using this content to learn things like credit card numbers and other sensitive information.



What is Encryption?

This process also keeps data on your device protected from being read by someone else. When you unlock your phone, this decrypts the data stored on it. Currently, authorities cannot break this encryption*, and would have to take you to court. You can still withhold the information, but it might result in charges.



*police departments cannot force you to unlock a phone! This includes with fingerprints and face scanning.

What's the EARN-IT Act?

If you send something illegal online, the government cannot litigate the website for your actions. However, the EARN-IT act looks to change that. Websites would have to allow the government to view messages WITHOUT a warrant or probable cause. This would require letting them break the encryption. This is not only a violation of privacy, but also weakens all forms of internet communication to hackers.



What can you do?

- Contact your representatives

The Electronic Frontier Foundation (EFF) has an easy tool to contact your government reps.

https://act.eff.org/action/stop-the-earn-itbill-before-it-breaks-encryption

- Download Signal Messaging App

This app is based entirely around privacy. While twitter can be audited to show messages you have stored on their servers, Signal keeps everything between you and your friends.

https://www.signal.org/

The Modern Classroom



A PARENT'S GUIDE TO TECHNOLOGY IN SCHOOLS

Technology gets a bit of a bad reputation among parents.

OF R-12 TEACHERS USE TECHNOLOGY DAILY WITH THEIR STUDENTS Understandably so, too—it's not uncommon for a child to choose to play a video game instead of doing homework, and the rise of social media has also given rise to things such as cyberbullying. However, technology is becoming more and more prevalent in our everyday lives. From the way we work, communicate, and grow, technology plays a vital role, and it's important for the modern classroom to reflect this. Despite its mixed reputation, technology can be a wonderful—if not vital—supplement to a student's education.

Engagement

- Incorporating different types of instruction and activities within the classroom can encourage both increased student engagement and greater retention of material.
- The act of **gamifying** typically monotonous tasks and lessons can encourage students to actually **learn**, **analyze**, and **apply** material.



Community and Collaboration

- The use of technology encourages students **to work with peers**, give and get feedback, and share their finished work with others.
- Digital apps and websites such as Google Drive increases the **efficiency and ease** of group work by allowing students to **instantaneously communicate** with their peers, even while at home.

Accessibility

- Assistive technology is the term for tools and devices used by students with disabilities that allow them to perform to their highest ability within the classroom.
- Many times, students with disabilities will have modified personal devices that cater to their individual needs.
- Assistive technology allows students with disabilities greater independence and access to materials, increasing their chances for success and meaningful learning.
- The normalization of personal devices for all students helps students with disabilities to feel less singled out.



- Encourage your student to separate "fun" technology time from "school" technology time. This may be a mental separation or a more physical one, such as completing homework in a separate room than video games or TV are enjoyed in. Creating a good study environment in the home may be more challenging when technology is involved, but it will be very beneficial.
- Encourage your student to keep instructional materials or directions pertaining to their classroom technologies. This way, you can reference them later on in case of a technology emergency, or if you're simply just curious about your student's classroom experience.
- Establish a mode of communication between yourself, your student, and your student's
 teacher. While some teachers prefer to keep their contact with parents limited, many
 teachers, especially those in younger grade levels, will gladly answer any concerns or
 questions you may have about your students or technology. Having an established mode of
 communication will help ensure that everyone involved in your student's educational
 experience is on the same page.

Sources:

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LESSONS LEARNED

- Overhauling the curriculum to make four smaller modules instead of major course projects helped scaffold/chunk content
- Responding to students' articulated needs improves outcomes
- Building targeted scenarios and assignments that connect to trends in the student body helps make lessons more applicable
- Pedagogy before technology. People before pedagogy.

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WHAT ELSE COULD I TEACH?



3378/3380: DESIGN/VIZRHET

Color theory, typography, layout and reading patterns, data visualization, Adobe Creative Suite

3379: WEB WRITING

Content strategy and management, usability, communications inventories and audits, user research

4322: NONPROFITS

Fund appeals and direct mailings, press releases, newsletters, reports, issue summaries and white papers; service learning!

THANKYOU for your time!



QUESTIONS? IDEAS? ALLEGRA W. SMITH | ALLEGRA-W-SMITH.COM

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