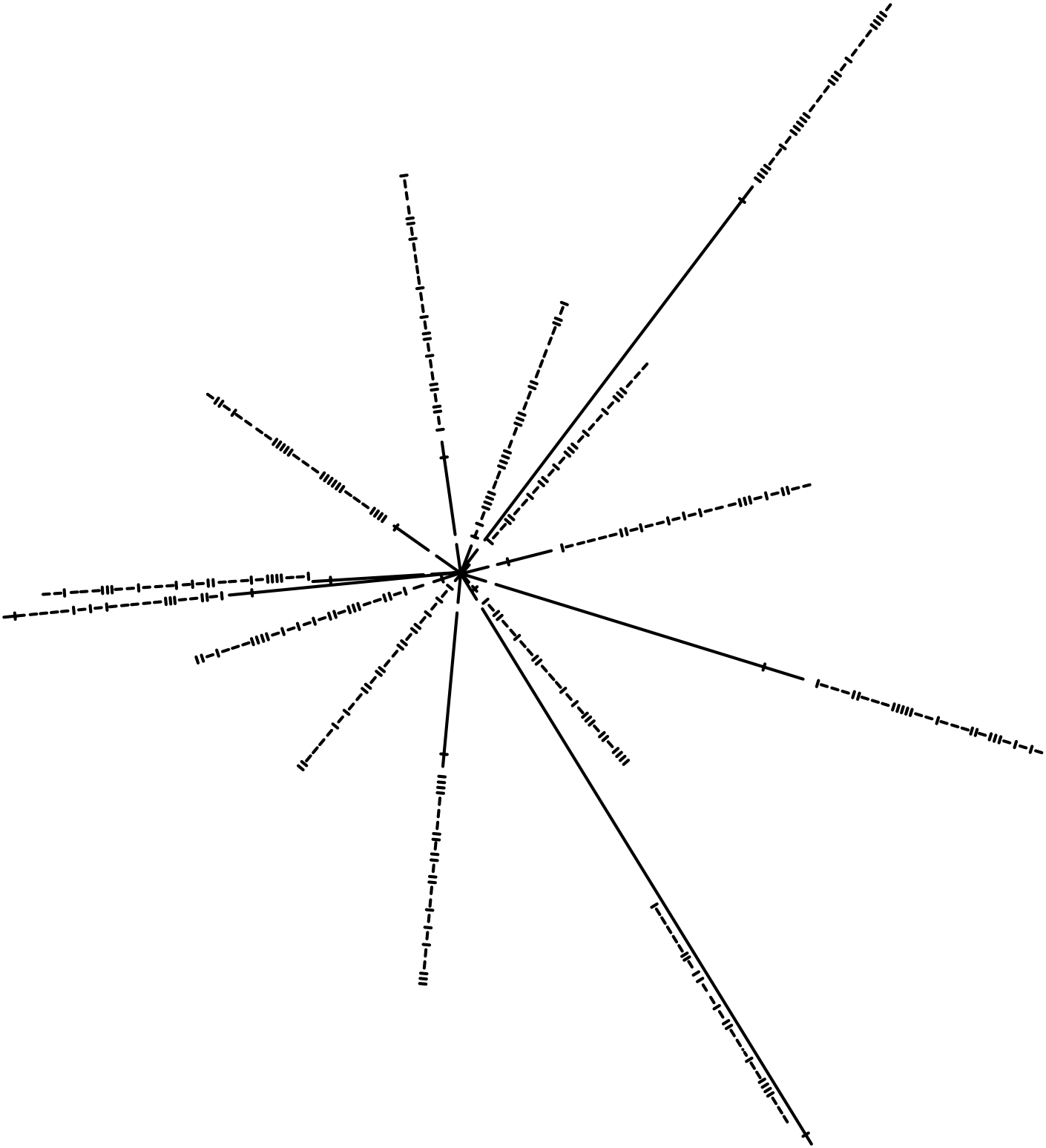


IDH 3931

Interstellar AI



IDH 3931

Interstellar AI: Course Details

Fall 2024

M | Period 4 | LIT 0119

Zea Miller, PhD

Assistant Instructional Professor
University Writing Program
University of Florida

Contact

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Office

2215 Turlington Hall
University Writing Program

Office Hours

By appointment. See Canvas.

Modality

L/D Classroom

Course Management

Canvas

Materials

Provided on Canvas

Supplies and Fees

None

Course Type

(Un)Common Writes courses are 1-credit themed writing workshops taught by University Writing Program faculty. These courses allow students the opportunity to work 1:1 with experienced instructors while stretching their writing muscles, inspiring their creative side, and releasing their inner writer.

Course Description

Beyond the end of writing, our probes and transmissions will transit the stars. The symbolic rhetorics of our messages at once indicate the significance of communicative priorities and serve to mark by absence what could have been different. In other words, our messages must prioritize content to such a degree that what is not sent could also be significant. What if we could send new versions? On the Pioneer probes, we sent plaques etched with signs. On the Voyager probes, we sent golden records with sights and sounds. Thus, as technology progresses, our messages develop in sophistication. What would we send in the age of artificial intelligence? By interpreting messages we have already sent, analyzing their formation and genre, and reading their history, we will come to fully appreciate the elements of scientific semiosis to prepare for the course project: crafting an AI-driven message.

Course Objectives

Upon completion of this course, a student should be able to establish conceptual (semiotic, semantic, and sonic) and theoretical (rhetorical, cognitive, and logical) parameters for interstellar messages, compose content thereunder, and evaluate compliance thereto individually, collaboratively, and with artificial intelligence.

Interstellar AI: SLOs

Student Learning Objectives

This course will realize the course objectives by and through the following framework.

Goals

- To understand how to craft content strategically, effectively, rhetorically, and semiotically
- To appreciate the history and evolution of interstellar communication
- To analyze the semiotic, semantic, and sonic elements of interstellar messages
- To explore the intersection of rhetoric, cognitive science, and logic in shaping interstellar communication
- To utilize AI resources for the creation of novel interstellar messages
- To develop collaborative communication and project management skills
- To strengthen writing, creative capacities, and adaptability

Means

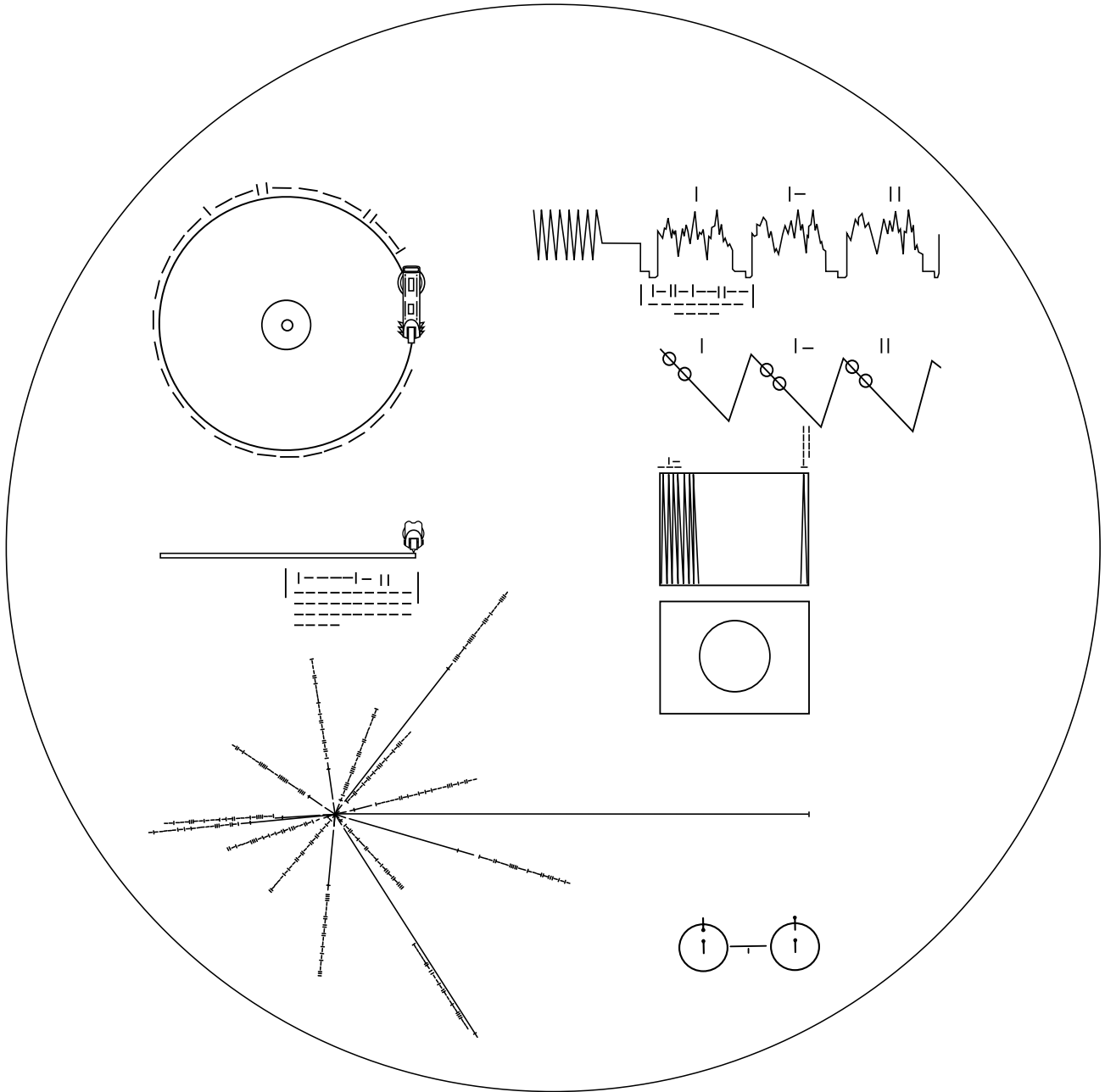
- Analyzing and interpreting existing interstellar messages (e.g., Pioneer Plaque, Voyager Golden Record, Aricebo Message)
- Studying theory, including rhetoric, semiotics, cognitive science, and philosophy of language
- Exploring the latest AI platforms and services
- Engaging in peer editing, feedback, and collaborative brainstorming
- Utilizing AI platforms for ideation and content development
- Participating in group presentations and discussions
- Completing projects using critical, creative, and lateral thinking

Outcomes

By the end of this course, students will be able to demonstrate their understanding of the historical and conceptual frameworks used in interstellar communication, analyze and create examples of same, apply their knowledge of rhetoric, cognition, and logic to collaborate on a novel interstellar message with both peers and AI, and bolster their reasoning and writing skills by recording and justifying process, thereby preparing them for future work in their majors and careers.

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Interstellar AI: Assignments



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Interstellar AI: Assignment Series

Structure

In this course, we will retrace how probes have carried evolving styles of messages into space. The major assignments mirror the approach of each era, beginning with plaque, moving to a record, and ending with what we might send today: an AI bot. Along the way, you will host and reply to discussion posts. At the end of the term, you will compose a reflection on your work and growth.

Class	Task	Words	Points
Major	Plaque	250	250
	Record	250	500
	Bot	2000	1000
Minor	Discussion Posts	250	50
	Course Reflection	250	50

Interstellar AI: Rubrics

Standard Rubric

Work submitted for grading will be assessed by how the deliverable measures against standard benchmark qualities for assessment as a range of ratings.

Rating	Exceptional	Excellent	Great	Good	Fair	Poor	Insufficient
<i>Standard</i>	<i>Surpasses</i>	<i>Perfects</i>	<i>Meets</i>	<i>Mostly Meets</i>	<i>Meets Some</i>	<i>Barely Meets</i>	<i>Does Not Meet</i>
Content Correctness, Completeness, Complexity, Evidence	Points x 1.7	Points x 1	Points x .97	Points x 0.87	Points x 0.77	Points x 0.67	Points x 0
Expression Clarity, Concision, Coherence, Citations, Style, Mechanics	Points x 1.7	Points x 1	Points x .97	Points x 0.87	Points x 0.77	Points x 0.67	Points x 0
Form Structure, Organization, Genre, References	Points x 1.7	Points x 1	Points x .97	Points x 0.87	Points x 0.77	Points x 0.67	Points x 0
Substance Argumentation, Effectiveness, Visuals	Points x 1.7	Points x 1	Points x .97	Points x 0.87	Points x 0.77	Points x 0.67	Points x 0

Interstellar AI: Rubrics (cont.)

Pass/Fail Rubric

Work submitted for pass/fail grading will be assessed by how the deliverable measures against benchmark qualities for assessment as binary ratings.

A minimum of 50% of the point total is required to earn a passing grade. Fields relayed under quality categories given are examples only. They will vary by the assignment.

Rating	Sufficient	Insufficient
<i>Standard</i>	<i>Meets</i>	<i>Does Not Meet</i>
Content Correctness, Completeness, Complexity, Evidence	Points x 1	Points x 0
Expression Clarity, Concision, Coherence, Citations, Style, Mechanics	Points x 1	Points x 0
Form Structure, Organization, Genre, References	Points x 1	Points x 0
Substance Argumentation, Effectiveness, Visuals	Points x 1	Points x 0

Grading Scale

Please review the UF [grade and grading policies](#).

Grade	Percentage
A	94 - 100%
A-	90 - 93%
B+	87 - 89%
B	84 - 86%
B-	80 - 83%
C+	77 - 79%
C	74-76%
C-	70-73%
D+	67-69%
D	64-66%
D-	60-63%
E	<60

Interstellar AI: Design a Plaque

Create a New Plaque

Individual Assignment. 250 Words. 250 Points. Standard Rubric. *Use theory to create content.*

Inspired by the ideographs, ideograms, cultural semiosis, science, and etchings sent into space, you are tasked with creating a plaque that relays conceptual information.

Deliverables

1 Image and 1 Document on Process.

The Image

Create a plaque that encodes conceptual information.

Quality	Description
Composition	Medium Image File
Format	Code 16:9 or 4:3 Ratio
Organization	Structure Design Conveys Information
Evidence	Conceptualization Information Mappable to Concepts
Style	Artistic Abstract and Conceptual

The Document

Craft a report that traces your process and guides a user through your image.

Quality	Description
Composition	Medium Text File
Format	Code Markdown
Organization	Structure Ideation, Rationale, Creative Process, and an Interpretation Guide
Evidence	Logos Establish a reasonable argument for content development by and through reason and reasons.
Style	Genre Report
Length	Word Count 250, Minimum

Interstellar AI: Design a Record

Create a New Playlist

Individual Assignment. 250 Words. 500 Points. Standard Rubric. *Use strategy to aggregate content.*

Inspired by the messages we have transmitted into space, you are tasked with creating a track listing that reflects eras and peoples across time and the planet.

Deliverables

1 Playlist and 1 Document on Process

Primary Categories

Continents	Emotions	Times
Africa	Happy	1600-1799: 2
Asia	Sad	1800s: 2
Australia	Exciting	1900s-Today: 1
Europe	Relaxing	per Decade
North America	Love	
South America	Anger	
	Lonely	
	Hopeful	

Secondary Categories

Genres	Narratives	Personal
5	5	5

Record

Using a vendor of choice, please create a playlist that can be shared with the class.

Quality	Description
Composition	Medium Internet List
Format	Playlist Sharable Playlist from a Vendor
Organization	Structure Artist, Year, and Title
Style	Format Ordered by Category
Length	Song Count 1 per Category, Minimum

Document

Describe your approach to narrowing then determining your song choices. In other words, how did you generally begin, conduct, and end your search?

Quality	Description
Composition	Medium Typst
Format	Genre Report
Organization	Structure Categories as Headings and Subcategories as Subheadings with Overview
Style	Voice Professional Language
Length	Word Count 250 Words, Minimum

Interstellar AI: Design an AI Bot

Create a New Bot

Individual Assignment. 2000 Words. 1000 Points. Standard Rubric. *Use collaboration to create content with peers and AI.*

Over time, we have sent increasingly complex messages in various media available at the time. In the age of AI, might we send an AI chatbot? If so, how would we begin? You are tasked with starting the process as a team and with the help of AI.

Deliverables

1 Bot and 1 Document on the Content Developed

AI-Driven Bot

As a class, you will encode information about Earth and science for a bot to interact with an intelligence.

Quality	Description
Composition	Medium Google Colab Google Cloud Vertex
Format	Database Topics and Content
Organization	Structure Conceptually Separate Segments
Style	Voice Scientific and Technical Language
Length	Word Count 2000 Words, Minimum

Document

Describe your approach to narrowing then determining your content choices. In other words, how did you narrow your topic and decide how to encode it?

Quality	Description
Composition	Medium Typst
Format	Genre Report
Organization	Structure Categories as Headings and Subcategories as Subheadings with Overview
Style	Voice Professional Language
Length	Word Count 250 Words, Minimum

Interstellar AI: Minor Assignments

Create and Reply to Discussion

Posts

Individual Assignment. 250 Words. 50 Points. P/F Rubric. *Stay current on developments in the AI, messages, and narratives.*

At least once per term, each student will host a discussion for a topic related to the course. All students are required to host once and reply to all student-hosted first-level posts.

Deliverable

1 Post and Necessary Replies

Posts

Introduce the class to an event or object related to the course. Discuss history, significance, and interpretation, where relevant.

Quality	Description
Composition	Medium Typst
Format	Genre Memo
Organization	Structure Memo Headings and Subheadings with Media
Style	Voice Academic Language
Length	Word Count 250 Words, Minimum

Create a Course Reflection

Individual Assignment. 250 Words. 50 Points. P/F Rubric. *Reflect on the journey taken in the course.*

Over the course of the term, you have learned about a considerable number of topics, from semiotics to AI. Reflect on your intellectual growth and journey. What will you take out of the course? How do you imagine that it might help you in the future? If applicable, what might you have done differently?

Deliverable

1 Document

Reflections

Trace your growth as a critical and creative thinker over the term.

Quality	Description
Composition	Medium Typst
Format	Genre Memo
Organization	Structure Memo Header with Content
Style	Voice Academic Language
Length	Word Count 250 Words, Minimum

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Interstellar AI: Module 1

Introduction to the Course

Who are we? What is the nature of the course? What will we learn? What skills will we develop? What topic examples can be found in narratives?

Knowledge Development

Communication, Narratives

Skill Development

Networking

Required Readings

- [List of Interstellar Probes](#)
- [List of Interstellar Radio Messages](#)

Required Viewings

- [Contact](#)
- [Arrival](#)

Structure

Week	Activities	Assessments and Deliverables	Lectures and Discussions	Readings
1	Introductions	N/A	Syllabus Overview	Syllabus
2	No Class Labor Day Holiday	Read and Reply to Discussion Posts	N/A	Watch <i>Contact</i> and <i>Arrival</i>

Interstellar AI: Module 2

Writing with and for AI

What are LLMs? How should we use AI? How can we make prompts? How can we improve prompts? What kinds of prompts are there?

Required Readings

- Google Vertex: [Introduction to Prompting](#)
- Google Cloud: [Prompt Engineering](#)

Knowledge Development

Large Language Models

Skill Development

Prompt Design, Prompt Engineering

Structure

Week	Activities	Assessments and Deliverables	Lectures and Discussions	Readings
3	Create Prompts for AI	Read and Reply to Discussion Posts	Prompt Design	Introduction to Prompting
4	Revise Prompts for AI	Read and Reply to Discussion Posts	Prompt Engineering	Prompt Engineering

Interstellar AI: Module 3

Plaques

What messages have we physically sent into space? How are they meant to be interpreted? What can we learn from them? How can we recreate them today?

Knowledge Development

Semantics, Semiotics, Rhetorical Theory, Categorization, Learning Models

Skill Development

Creative, Critical, and Design Thinking

Required Readings

- [Pioneer Mission](#)
- [Pioneer 10](#)
- [Pioneer 11](#)
- [NASA: Plaque](#)
- [Wikipedia: Plaque](#)
- [Planetary Society: Plaque](#)
- NASA. 1974. *Jupiter Odyssey*. YouTube.
- Purdue OWL: [Visual Rhetoric](#)
- Love, Bradley C. 2013. "[Categorization](#)." In *The Oxford Handbook of Cognitive Neuroscience: Volume 2: The Cutting Edges*, edited by Ochsner and Kosslyn, 342–358. Oxford: Oxford University Press.

Structure

Week	Activities	Assessments and Deliverables	Lectures and Discussions	Readings
5	Discuss Readings	Read and Reply to Discussion Posts	Semantics and Semiotics	Pioneer Readings
6	Create Content	Read and Reply to Discussion Posts	Rhetoric	Visual Rhetoric
7	Create Content	Plaque Due	Categorization	Categorization

Interstellar AI: Module 4

Records

What music have we sent into space? What do the selections say about us as a species? How do the songs reflect our complexity? What might we include today?

Knowledge Development

World Music, The Development and Evolution of Music

Skill Development

Creative Thinking

Required Readings

- [Voyager Mission](#)
- [Voyager 1](#)
- [Voyager 2](#)
- [The Golden Record](#)
- [Overview](#)
- [Wikipedia: Golden Record](#)
- Ives, Mike. 2024. "[A Missy Elliott Song Travels to Venus at the Speed of Light.](#)" *The New York Times*, July 16, 2024, sec. Arts.
- Rolling Stone. 2024. "[The 500 Greatest Songs of All Time.](#)" *Rolling Stone* (blog). February 16.
- Reynolds, Emer. 2017. [The Farthest](#). PBS.

Structure

Week	Activities	Assessments and Deliverables	Lectures and Discussions	Readings
8	Discuss Recordings	Read and Reply to Discussion Posts	Voyager Record and Other Transmissions	Voyager Readings New York Times Reading Rolling Stone Reading
9	Listen to Selections and Vote on Playlists	Playlist Due	N/A	N/A

Interstellar AI: Module 5

AI Bot

What capabilities can we program into a chatbot to represent humanity? What of our knowledge can be shared in a way that could be understood?

Required Readings

- Wittgenstein, Ludwig. 1922. [Tractatus Logico-Philosophicus](#). (Excerpts)

Knowledge Development

Understanding

Skill Development

Intents, Events, Prompting

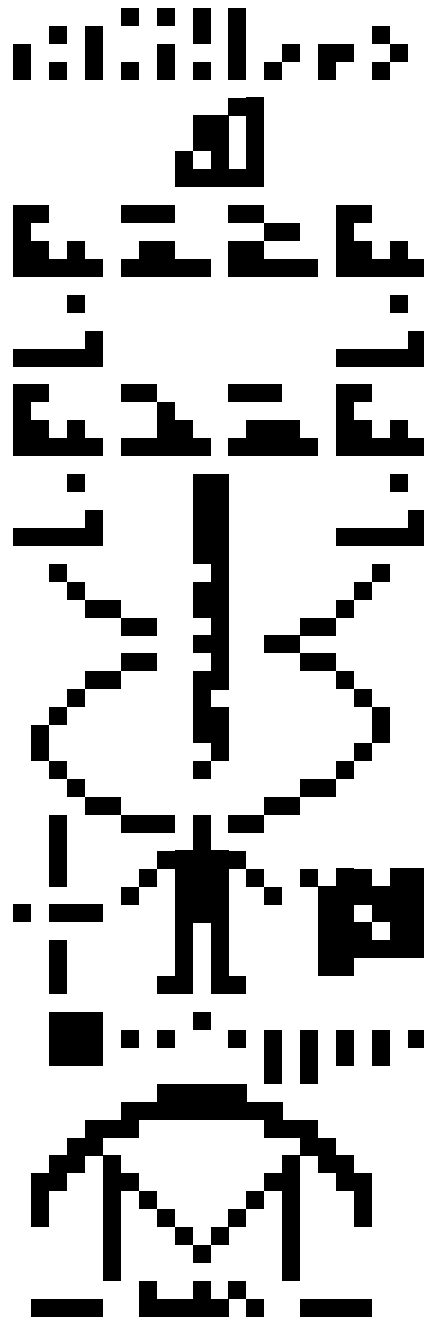
Structure

Module 5 will require considerable attention in and outside of class for content development.

Week	Activities	Assessments and Deliverables	Lectures and Discussions	Readings
10	Discuss Bots Register for Content	Read and Reply to Discussion Posts	Atomic Understanding	<i>Tractatus Logico-Philosophicus</i> (Points 1–4.1212)
11	Bot Content Development	Group Work		
12	No Class Veterans Day<>Continue Bot Content Development Outside Class			
13	Bot Content Development			
14	No Class Thanksgiving Week			
15	Test Bots	Bot Due	N/A	N/A

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Interstellar AI: Policy Statements



Interstellar AI: Course Policies

AI or Large Language Models

Required and Restricted. Assignments will have parameters detailing whether, when, and how to appropriately consult AI as a resource.

Attendance

Required. Only those absences deemed excused according to [UF policy](#), including university-sponsored events, such as athletics and band, illness, and religious holidays will be exempted from this policy. Absences related to university-sponsored events must be discussed with the instructor prior to the date missed. After 3 unexcused absences, a failing grade will be recorded for the course. If absent due to a scheduled event, students are still responsible for turning assignments in on time.

Tardiness

If you miss more than 15 minutes of class, you will be marked as having been absent for the session, unexcused. While highly unlikely, if inauspicious circumstances delay my arrival by more than 15 minutes, activities for that day should be considered canceled.

Participation and Preparation

Required. Ungraded for discussions. Self-graded only for group project. On average, you will need to devote at least 3 hours per week for attendance and participation and 6 hours per week towards writing, reading, and research as preparation.

Important Dates, Changes, and Readings

Please review the course calendar on Blackboard weekly. Objectives are subject to change. Assignments and deadlines are subject to change relative to our overall progress. Changes will be announced in class or by email. Please consult the course calendar and the assignments page in Canvas for required and recommended readings.

Composition Process and Storage

All work for this course must be composed and stored on Microsoft OneDrive, Google Docs, or a similar cloud storage service. Your work must be original (see University Honor Policy). Assignments must undergo editing as part of the composition process.

Peer Editing

Required. This course will promote writing as a process. To that end, all students will be tasked with peer editing responsibilities. Failure to edit the work of others will result in a 10% reduction for the project in play.

Grading

Assignments must be submitted as indicated on Canvas to be graded. Coursework will be graded by how closely it meets the rubric criteria outlined for it.

Late Work and Make-Up Work

Excepting presentations, late work will be accepted within a 1 course-day window after the assignment is due. However, for each real day the assignment is late, a 5% penalty will be assessed. Late work submitted after that window will be subject to a grade ceiling of B. Quizzes and exams must be completed within a 2 course-day window for credit.

Disruption

Every student has the right to a comfortable learning environment where the open and honest exchange of ideas may freely occur. Each student is expected to do his or her part to ensure that the discussion board remains conducive to learning. This includes respectful and courteous treatment of all in the classroom. The professor will take immediate action when inappropriate behavior occurs.

Nondiscrimination

Discrimination against any member of the university community on the basis of race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability, or status as a veteran is prohibited.

General Disclaimer

The course will likely change based on student interests and progress. The professor reserves the right to make changes to this syllabus as necessary.

Interstellar AI: University Policies

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

U Matter, We Care

If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit the [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center

Visit the [Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center

Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the [Student Health Care Center website](#).

GatorWell Health Promotion Services

For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273-4450.

The Writing Studio

The Writing Studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the [Writing Studio website](#) for one-on-one consultations and workshops.

Additional Support

- [Career Connections Center](#)
- [E-learning](#)
- [Library](#)

UF Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via [GatorEvals](#). Guidance on how to give feedback in a professional and respectful manner is [available](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals. Summaries of course evaluation results are [available](#) to students.