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WORK SAMPLE PORTFOLIO

Learning Design & Program Operations · Work Samples

ABOUT THIS PORTFOLIO

This portfolio contains two work samples from my role as the founding coordinator of Minds and Machines, an interdisciplinary AI and cognitive science program at a leading research university. I held this position from 2019 to 2022, building all training and operational infrastructure from scratch: no predecessor, no documentation, no playbook.

Both artifacts have been lightly anonymized: faculty, TA, and student names have been removed, and the institution is not identified. The substance of the work (the frameworks, the data, the operational systems) is unchanged. The language throughout is the original language of the documents: TAs are TAs, students are students, discussion sections are discussion sections. The translation to Handshake's context is in the framing below.

What Each Artifact Demonstrates

Artifact 1: Quarterly Course Iteration Report (Fall 2020 Postmortem) shows how I collected multi-source performance data (182 student responses, 7 TA responses), synthesized findings into a structured keep/change framework, and translated those findings into concrete action items for the next course iteration. This loop (collect performance data, identify what is working and what is not, deploy targeted changes, measure again) is directly transferable to any training quality context where operator performance needs to be maintained as project requirements evolve.

Artifact 2: Coordinator Readme (excerpt) is an excerpt from the coordinator readme I built to make the program runnable without me: TA orientation protocol, weekly cadence, training resources for section leaders, student outreach templates, and the FAQ library. The goal: systems specific enough to drive consistency, flexible enough to survive changing requirements, and durable enough to outlast any one person. The coordination pattern transfers directly to any context where a program lead needs to enable a distributed team of non-specialists to execute independently.

How This Work Translates

The core problem in both artifacts is calibration: getting a diverse group of people to produce consistent, high-quality judgments on inherently subjective tasks, at scale, when requirements keep changing. The mechanism (annotated worked-example guides with quality ratings, weekly calibration sessions, iterative feedback loops, infrastructure designed for autonomous execution) applies across domains: discussion facilitation, student assessment, AI training data annotation, or any context where human judgment needs to be consistent and scalable.

What I built in this program was not a curriculum. It was a quality system.

ARTIFACT 1

Quarterly Course Iteration Report

Minds and Machines · AI & Cognitive Science Program · Fall 2020 Postmortem

OVERVIEW & KEY TAKEAWAYS

This report synthesizes feedback from 182 students and 7 teaching assistants (TAs) collected at the end of Fall 2020. It was used to drive curriculum and training decisions for the Winter 2021 iteration. Data sources: internal student survey, TA survey, and official course evaluations.

Top-Line Findings

- Most valued by students: modular course structure, the hands-on group project (Module 2), discussion sections, and office hours
- Least valued: disconnection between modules, long/dense readings and videos without scaffolding, quiz wording that tested phrasing rather than understanding
- TA consensus: section planning burden was uneven; calibration on content review vs. discussion balance needed; student engagement in synchronous sessions was low with cameras off

- Highest-rated component overall: Module 2 group project (34 favorable mentions) — students valued experimentation, collaboration, and direct application of concepts
- Lowest-rated: weekly quizzes, particularly early ones — students felt they were testing wording ability, not understanding

KEEP / CHANGE FRAMEWORK

Summary table synthesized from student and TA survey data. Used to drive Winter 2021 course redesign decisions.

✓ KEEP from Fall 2020	✗ CHANGE from Fall 2020
Module structure — students found it very helpful for tracking progress	Add explicit connections between modules (wrap-up/transition videos at module boundaries)
Module 2 group project — highest-rated component; students valued teamwork and experimentation	Reduce writing load across projects; introduce 'build something' framing alongside analytical writing
Discussion sections — the part of the course that felt most like a real class	Standardize section deliverables (slides + voiceover notes); randomize student selection instead of waiting for volunteers
Guest speakers at Friday seminars — made concepts concrete and applicable	Add content review before Q&A in Friday seminars; increase interactivity (polls, 2-3 min breakouts)
Office hours structure (FAQ slides, joint OH, sample answers on hand)	Rebrand OH as 'homework party' to reduce perceived formality; each TA to offer personal 1-1 scheduling link
Slack communication within teaching team — channel split worked well	Improve student-facing Slack engagement; Canvas announcements more reliable for student communication
Weekly deadlines with clear progression	Reduce number of reading response submissions; group by theme to reduce busywork perception
Module 1 and 3 content (philosophy of mind, theory of mind, Bayesian reasoning)	Cut or scaffold longer readings (Tenenbaum, Pinker, Grice) — provide highlights or guiding questions
TA rotation for section planning	Require more time in weekly team meetings for content discussion, not just logistics

MODULE-LEVEL ANALYSIS

Module 1 — What Is a Mind?

- Most popular: Descartes / mind-body problem, Chinese Room, Marr's levels of analysis, Donkey Kong (3 mentions each)
- Least popular: formal semantics and linguistics section — students felt misled about its relevance; recommend cutting or reframing
- Marr's methodological vs. functionalist argument was consistently confusing — needs scaffolding or a faculty-recorded explainer

Module 2 — Synthetic Minds

- Group project was the highest-rated single component in the course (34 favorable mentions) — keep and protect
- Algorithmic bias framing was well-received; Brookings reading was seen as dry — consider replacing with a video
- Some students felt module was too shallow for those with prior ML background — consider optional extension materials

Module 3 — Organic Minds

- Most popular module overall — especially theory of mind, Bayesian reasoning, and the Wolpert TED talk
- Bayesian content was interesting but repetitive across videos and readings — consolidate and cut Tenenbaum paper
- Rebecca Saxe dialogue with faculty was divisive — some loved it, some didn't; keep but add framing

Module 4 — Interacting Minds

- Game theory was the single most popular specific topic in the course (10 favorable mentions)
- Grice reading was interesting but convoluted — needs historical context setup in lecture or Friday seminar before assigning
- Module felt less cohesive than others, partly due to election week disruption — connections between readings need to be spelled out explicitly

Module 5 — Applications

- Week 10 TA career path videos were among the highest-rated content in the course — helped tie together the interdisciplinary scope
- Recommend restructuring: remove as a standalone module, distribute application content as half-week wrap-ups within each module

TEACHING TEAM: OPERATOR-LEVEL FINDINGS

Feedback from 7 TAs on section delivery, workload, calibration, and communication.

WHAT WORKED	WHAT TO IMPROVE
TA rotation for section planning — shared ownership, reduced individual burden	Need more uniform deliverables: slides + voiceover notes so TAs understand how to use materials without individual briefing
Warmup popcorn questions (5 students, saves time)	Students with cameras off — use breakout rooms as forcing function; warn students in advance
Breakout rooms when engagement was low	Getting students to volunteer — switch to random selection
Interactivity: videos, polls, games	Check in with students who stop attending sections by Week 4-5
Attendance forms	Set aside time in section for reading/video response questions — don't leave all content review to TAs
First section leader to pilot and debrief — established calibration baseline	Balance between content review and discussion application — needs explicit calibration each week
Short Slack response time from coordinator	Team meetings focused too heavily on logistics vs. content — flip the ratio
Channel structure: #teach-announce / #teach-general / #teach-random	TA workload too high: cut quiz question generation and response summarization from TA responsibilities

ACTION ITEMS FOR WINTER 2021

Curriculum

- Record module wrap-up/transition videos for all modules — priority for faculty
- Scaffold longer readings: provide key takeaways or guiding questions for Tenenbaum, Pinker, Grice, Brookings
- Redesign Module 4 project: move away from open-ended writing toward structured game theory application
- Redistribute Module 5: dissolve as standalone, embed application content within each module as half-week wrap-up

Assessment

- Rename quizzes to 'problem sets' — reframe as synthesis tasks, not comprehension checks
- Move to Gradescope for standardized grading; build question banks from previous iterations
- Prepare rubric and sample answers before releasing each problem set — prevents wording disputes
- Reduce reading response submissions; group by theme; add guiding questions

Section & Friday Seminar

- Standardize section deliverable format: slides + voiceover notes + facilitation guide
- Add 2-3 minute structured breakout sessions to Friday seminars
- Shift Friday seminar format: content overview before guest Q&A, not after
- Build a section observation protocol — coordinator observes each TA by Week 4-5 and provides structured feedback

TA Training & Calibration

- Redesign TA orientation: more time on content mapping and calibration, less on logistics
- Build weekly pre-section check-in protocol: brief discussion of that week's content before TAs run sections
- Reduce TA grading load by increasing auto-graded questions and cutting response summarization

ARTIFACT 2

Coordinator Readme

Minds and Machines · AI & Cognitive Science Program · Coordinator Readme (excerpt)

This document is an excerpt from the coordinator readme I built to make the program runnable without me. It was designed to onboard new coordinators and head TAs, and to serve as the operational backbone across rotating faculty and TA teams over three years of course iterations. The full document covers platform setup, enrollment logistics, grading workflows, and event planning. This excerpt focuses on TA orientation and training, the weekly operational cadence, the student outreach protocol, and the FAQ and email template library.

TA & SECTION LEADER ORIENTATION

Run before Week 1. Purpose: establish shared standards, clarify roles, and begin calibration before any students arrive.

- Open with introductions — name, program, one fun or unexpected fact. Establishes human connection before operational content.
- Walk through the coordinator readme together: responsibilities and expectations, course structure and module logic, basics of leading sections and running synchronous sessions.
- Map out the full 10-week content arc as a team — TAs should understand how each module connects to the next before they plan their first section.
- Discuss the balance between content review and discussion application — this is the calibration question that will come up every week. Establish a shared default position.
- Open Q&A — log all questions as FAQ entries for the shared document.

TA Training Resources

Provided to all new section leaders at orientation. Designed to build pedagogical capability, not just procedural compliance.

- Planning your first section — how to structure 60 minutes, how to balance review and discussion, how to handle low engagement
- Creating section content — how to build slides that work as both presentation and reference; voiceover notes for asynchronous use
- Holding effective office hours — reframing OH as a learning conversation, not a help desk
- Grading effectively — using rubrics, calibrating with other TAs, handling regrade requests
- Active learning techniques — breakout rooms, polls, cold calling, warmup questions
- Setting learning goals — backward design for discussion sections

Section Leader Observation Protocol

Run by coordinator in Weeks 4-5. Purpose: calibration, coaching, and identification of training gaps.

- Coordinator observes each section leader's section and debrief afterwards
- Section leaders observe one peer — ideally someone with a noticeably different teaching style
- Before the observation: each section leader identifies their top 2 teaching values (e.g., warmth, content depth, energy, approachability)
- During observation: watch specifically for how the observed TA embodies those values — makes the observation concrete rather than evaluative
- After observation: structured debrief — what worked, what to try differently, one specific thing to implement next week

WEEKLY OPERATOR CADENCE

The weekly rhythm for coordinators and head TAs. Designed to be self-executing once internalized — the goal is that operators run this without prompting.

Monday

- Publish grades from previous week (weekly responses, discussion posts, section attendance, problem set/project grades)
- Post weekly reminders on #teach-announce Slack channel
- Set up grading assignments for the week
- Remind problem set/project reviewers of deadlines

Tuesday

- Lead weekly teaching team meeting (content discussion first, logistics second — 60/40 split)
- Send section checklist to all TAs on #teach-announce
- Check in with faculty on Friday seminar plan

Wednesday

- Finalize Friday seminar slides: edit the thinking exercise slide, create exit ticket, add 1-2 discussion post highlights
- Send section makeup materials to students with accommodations
- Remind next week's section planners

Thursday

- Send grading deadline reminder on #teach-announce
- Check in with any students flagged as disengaged or missing assignments — use the check-in email template

Friday

- Run Friday seminar: start recording, set up microphone for guest speakers, post exit ticket link
- Send asynchronous seminar materials to students with async accommodations
- Upload seminar slides and section slides to course files
- Remind team about grading previous week's project/problem set

Saturday (automated, coordinator reviews)

- Canvas announcement: 'Week X items' — what's due, what's coming, any reminders

PROACTIVE STUDENT OUTREACH PROTOCOL

Designed to catch disengagement before it becomes attrition. Run by coordinator; section leaders notified.

By Weeks 4-5, visit each section to observe how things are going. Check Canvas data for students missing multiple assignments. Send the following email template within 48 hours of identifying a student at risk:

> *Dear [Student], I'm writing to check in with you about your participation in [Course] this quarter. We noticed you were missing a few assignments, and we were wondering if there are ways the course staff might help make the course work better for you. For example, we could book a time to chat and see how we might be able to accommodate makeup work. Please let us know if you have any questions.*

- Log all outreach in the student tracking spreadsheet — note date contacted, response received, action taken
- Section leader notified of any students in their section who receive outreach — they follow up in the next section
- If no response within one week, escalate to faculty

FAQ & EMAIL TEMPLATES

Built iteratively throughout the year. Every new query type was logged here so the next occurrence could be handled by any TA without escalation — the institutional memory of the program.

Section Enrollment After Add/Drop Deadline

Students who enrolled in the lecture without selecting a section must email the teaching team. Coordinator verifies enrollment, issues a permission code, and sends enrollment instructions. Do not ask students to unenroll from the lecture first — they will lose their spot.

Asynchronous Seminar Accommodations

Students with async accommodations receive: (1) link to seminar recording, (2) breakout activity document, (3) lecture slides, (4) link to reflection submission form. Deadline is Sunday 11:59pm of that week. Log in the accommodations tracking sheet.

Permission Codes for Priority Enrollment

Issue permission codes to: (1) juniors/seniors declaring the major, (2) seniors who need the course to graduate, (3) students who were previously waitlisted and can provide documentation. All others join the standard waitlist.