



**COURSE FORMAT**

This course is run “UK-Style” with classes alternating between lectures and seminars. Each week is dedicated to a particular theme (e.g. “Deep Learning”, “Time and Mind”) and will usually involve a lecture on the Monday and a seminar on the Wednesday. Some weeks — for instance, when I am away or when there is a holiday — will condense the lecture and seminar into a single session.

Lectures will introduce you to the week’s theme. These will usually involve a presentation of about 45-60 minutes, with breaks for questions and occasional activities. Seminars are wholly discussion-based, with a mix of small-group and whole-class activities.

Almost every session (that is, every lecture and every seminar) will have a reading associated with it—you are expected to have completed this before class begins. Recommended texts are optional reads, but highly recommended.

**COURSE SCHEDULE**

Week		Date	Format	Required Readings
<b>Computation</b>				
1	<b>Information and Representation</b>	Aug 22 <sup>nd</sup>	Lecture	Abrahamsen, Adele and Bill Bechtel. 2012. History and Core Themes. In Keith Frankish and William Ramsey (eds.) <i>The Cambridge Handbook of Cognitive Science</i> . Cambridge University Press.
		Aug 24 <sup>th</sup>	Seminar	Marr, David. 1982. <i>Vision</i> . The MIT Press, pp. 19–29.
2	<b>Functionalism and Multiple Realizability</b>	Aug 29 <sup>th</sup>	Pre-Recorded Lecture (Prof Out of Town)	Turing, Alan. 1950. Computing Machinery and Intelligence. <i>Mind</i> , 59(236): 433–460.
		Aug 31 <sup>st</sup>	<b>No class</b> (Prof. Out of Town)	<i>Recommended:</i> Hutchins, Edwin. 1995. <i>Cognition in the Wild</i> . Cambridge, MA: The MIT Press, pp. 49–93.
3	<b>Language of Thought</b>	Sept 5 <sup>th</sup>	<b>No class</b> (Labor Day)	Crane, Tim. 2015. <i>The Mechanical Mind</i> . 2 <sup>nd</sup> ed. Routledge, pp. 94-105 (§§8.2-8.3 of Ch. 8 “The Mechanisms of Thought”)
		Sept 7 <sup>th</sup>	Lecture & Seminar	<i>Recommended:</i> Rescorla, Michael. The Language of Thought Hypothesis. In Ed Zalta (ed.) <i>Stanford Encyclopedia of Philosophy</i> . [Online at: <a href="https://plato.stanford.edu/entries/language-thought">https://plato.stanford.edu/entries/language-thought</a> ]. (Sects. 3–6)
<b>Philosophical Challenges</b>				
4	<b>Time and Mind</b>	Sept 12 <sup>th</sup>	Lecture	Van Gelder, Tim. 1995. What might thought be if not computation? <i>Journal of Philosophy</i> , 92(7): 345–381.
		Sept 14 <sup>th</sup>	Seminar	<i>Recommended:</i> Shapiro, Lawrence. <i>Embodied Cognition</i> . Routledge, pp. 114–137 (Sects 5.1–5.7)
5	<b>Boundaries</b>	Sept 19 <sup>th</sup>	Lecture	Haugeland, John. 1998. <i>Having Thought</i> . Harvard University Press, pp. 209–237 (Sects from Ch 9. “Mind Embedded and Embodied”)
		Sept 21 <sup>st</sup>	Seminar	Clark and Chalmers. 1998. The extended mind. <i>Analysis</i> , 58(1): 7–19.
6	<b>Group Minds</b>	Sept 26 <sup>th</sup>	Lecture	Huebner, Bryce. 2016. The Group Mind in Commonsense Psychology. In Justin Sytsma and Wesley Buckwalter (eds). <i>The Blackwell</i>

				<i>Companion to Experimental Philosophy</i> , Wiley, pp. 292-305.
		Sept 28 <sup>th</sup>	Seminar	Rupert, Robert. 2011. Empirical Arguments for Group Minds: A Critical Appraisal. <i>Philosophy Compass</i> , 6(9): 630–639.
<b>Architectures and Sources of Evidence</b>				
7	<b>Deep Learning</b>	Oct. 3 <sup>rd</sup>	Lecture <b>(First Reflective Exercise Released)</b>	Bermúdez, José Luis. 2020. Cognitive Science. 3 <sup>rd</sup> Ed. Cambridge (Ch. 5–“Neural Networks and Distributed Information Processing”) <i>Recommended:</i> 3 Blue 1 Brown on Machine Learning: <a href="https://www.3blue1brown.com/topics/neural-networks">https://www.3blue1brown.com/topics/neural-networks</a> (especially the first two videos in the series)
		Oct. 5 <sup>th</sup>	Seminar	Cameron Buckner. 2019. Deep learning: a philosophical introduction. <i>Philosophy Compass</i> , 14(10): e12625.
8	<b>Cognitive Neuroscience</b>	Oct 10 <sup>th</sup>	Lecture	Bermúdez, José Luis. 2020. Cognitive Science. 3 <sup>rd</sup> Ed. Cambridge. (§§9.1–9.2: pp.241-229)  Pessoa, Luiz. The Networked Brain [Online at: <a href="https://cognitionemotion.wordpress.com/2021/02/20/the-brain-network/">https://cognitionemotion.wordpress.com/2021/02/20/the-brain-network/</a> ]
		Oct. 12 <sup>th</sup>	Seminar <b>(First Reflective Exercise Due)</b>	Piccinini, Gualtiero. 2020. <i>Neurocognitive Mechanisms</i> . Oxford (Ch. 8–“The Cognitive Neuroscience Revolution”)
9	<b>Animal Models and Cognitive Evolution</b>	Oct 17 <sup>th</sup>	<b>No class (Fall Break)</b>	Halina, Marta. 2015. There Is No Special Problem of Mindreading in Nonhuman Animals. <i>Philosophy of Science</i> 82:473—490.
		Oct 19 <sup>th</sup>	Lecture & Seminar	
10	<b>Predictive Coding</b>	Oct 24 <sup>th</sup>	Seminar	Sprevak, Mark. <i>draft</i> . Predictive Coding I: Introduction
		Oct 26 <sup>th</sup>	Seminar	Sprevak, Mark. <i>draft</i> . Predictive Coding II: The Computational Level
11	<b>Personal/Sub-Personal Distinction</b>	Oct 31 <sup>st</sup>	Lecture	Tversky A, Kahneman D (1981) The framing of decisions and the psychology of choice. <i>Science</i> 211:453-458.
		Nov 2 <sup>nd</sup>	Seminar	Gendler, Tamar. 2008. Alife in Action (and Reaction). <i>Mind and Language</i> , 23(5): 552–585
12	<b>Language and Thought</b>	Nov 7 <sup>th</sup>	<b>Summative Essay Discussion</b>	
		Nov 9 <sup>th</sup>	Seminar	Damián E. Blasi et al. <i>In Press</i> . Over-reliance on English hinders cognitive science. <i>Trends in Cognitive Science</i> .
13	<b>Culture and Cross-Cultural Comparison</b>	Nov 14 <sup>th</sup>	Lecture	Cooperrider, Kensey. 2019. What happens to cognitive diversity when everyone is more WEIRD? <i>Aeon Magazine</i> . <a href="https://aeon.co/ideas/what-happens-to-cognitive-diversity-when-everyone-is-more-weird">https://aeon.co/ideas/what-happens-to-cognitive-diversity-when-everyone-is-more-weird</a>
		Nov 16 <sup>th</sup>	Seminar	Heyes, Cecilia. 2019 <i>Precis of Cognitive Gadgets: The Cultural Evolution of Thinking</i> . <i>Brain and Behavioral Science</i> , 42, e169. (Note, just the main target article)
<b>Extrapolation</b>				

14	<b>The Singularity</b>	Nov 21 <sup>st</sup>	Lecture & Seminar  <b>(Second Reflective Exercise Released)</b>	Chalmers, David J. 2010. The Singularity. <i>Journal of Consciousness Studies</i> 17:7–65.  <i>Recommended:</i> Piccinini, Gaultiero. 2021. The Myth of Mind Uploading. In RW Clowes, K Gärtner, and I Hipólito (eds.). <i>The Mind-Technology Problem</i> . Springer, pp. 125–143.
		Nov 23 <sup>rd</sup>	<b>No Class (Student Recess)</b>  <b>(Second Reflective Exercise Due)</b>	
15	<b>Whole-Brain Emulation</b>	Nov 28 <sup>th</sup>	Lecture	Mandelbaum, Eric. <i>forthcoming</i> . Everything and More: The Prospects of Whole Brain Emulation. <i>Journal of Philosophy</i> .
		Nov 30 <sup>th</sup>	Seminar	

## ASSESSMENT

The assessment of this course is meant to reward *participation and engagement with the course*. This because the skills crucial for philosophical work are critical thinking, charitable interpretation, and reflecting on (partial) successes and failures. Your knowledge of the course material is important—but less important than your attempts at developing these skills.

You will be assessed on four course elements: (i) participation; (ii) discussion responses; (iii) a summative paper; (iv) and two reflective exercises. Your ultimate grade will be determined by the following grading contract.

### The grading contract:

Grade Range	Missed Classes	Participation	Discussion Responses	Summative Paper	Reflective Exercises
A (100–90)	<6	80%	6	✓	Both
B (89–80)	<6	70%	5	✓	Both
C (79–70)	6	60%	4	✓	One
D (69–60)	8	50%	3	–	One
F (<59)	10	>50%	2	–	None

To achieve the grade range you want, simply do the work set out in that row. Note that your final grade range is capped by the *lowest successful element*.

**EXAMPLE:** If you have 70% participation, have four successful discussion responses, and a successful summative paper, *but only completed one of the two reflective exercises* — the highest grade you can receive will be in the C range.

For those who take the class **pass/fail**: in order to receive a grade of “satisfactory,” you must fulfill the requirements for the “C” grade range or better.

### Missed Classes:

Showing up is crucial and expected. The grading contract thus incorporates disincentives for missing multiple classes. If you miss 6 classes the highest grade you can achieve is a C; 8 classes, a D, and; 10 classes an F.

Participation:

Participation will be determined by reading and engaging with the 15 weekly seminar readings on both Perusall and in class (6.7% each).

This is sufficient/insufficient for each reading. You must read through the assigned reading on Perusall and making substantive comment contributions on the reading and in the classroom discussions. If you do this, you get the 6.7% for that week. If you do not, you do not get the 6.7%.

Though Perusall uses fancy AI to determine what “substantive” means, I won’t rely solely on it and will exercise my own judgment. Examples of what I take a substantive comment to be include those that:

- a. outline the argument of the section/paragraph and relates it to the goals of the paper;
- b. points to a technical concept or distinction, and provides some clarification of what it means in context;
- c. raises a question about an argument, concept, distinction, or piece of evidence and articulates why this question is important (for instance, if you are confused about what something means, explain what you are confused about);
- d. provide a useful explanation of a difficult stretch of text; or
- e. relates concepts, topics, or themes to other elements of the course in an interesting and illuminating way.

Discussion Responses:

Within 24-hours of every Wednesday seminar—or on Monday, in the case of week 14—I will release discussion questions. These will combine my own discussion prompts with some of those arising from your Perusall comments. Discussion responses **must** respond to one of these questions. A discussion response is a **short, 750–1250 word essay**, written by you, that responds critically to one of these questions.

Discussion responses are marked sufficient/insufficient. Both “sufficient” and “insufficient” will receive feedback. If the discussion response is marked as “insufficient”, I will suggest why. I will attempt to provide feedback on your essays within a week of receiving them. Rubrics for evaluation can be found on canvas ([link](#)).

You may resubmit a discussion response *twice* — but all resubmissions must include an additional letter that responds to the feedback and outlines what steps you have taken as a result. Resubmissions lacking this document, or letters that do not seriously engage with the feedback, will be sent back to you without being evaluated.

Discussion responses may be submitted at any time after the questions go online, up to **Monday December 5<sup>th</sup>, 2022 at 11:59PM**. After this, no submissions or resubmissions will be accepted.

Summative Paper:

Like the discussion responses, the summative paper is a response to the discussion questions released after each seminar session. However, the summative paper: (i) must be between 3,000 – 4,000 words long; (ii) must meaningfully engage with and integrate arguments, ideas, and/or concepts from at least *three* other scholarly sources (though more is certainly recommended); (iii) must use proper in-text citations and have a reference list.

Also like the discussion responses, this summative paper is marked sufficient/insufficient. The rubrics for evaluating these papers can be found on canvas ([link](#)).

You may choose to expand upon one of your previously written discussion responses for the summative essay—but keep in mind the added requirements to *meaningfully engage* with the additional sources.

As with your discussion responses, I will attempt to provide a grade and feedback within a week. If your summative paper is marked fail, you may resubmit it *once* — and you must include an additional document that reflects on the feedback I have given and outlines what you have changed as a response.

The summative paper may be submitted at any time after the questions go online, up to **Monday, December 5<sup>th</sup> at 11:59PM**

*Reflective Exercises:*

In week 7 I will release a “midterm” self-reflection exercise via canvas. This must be completed by **Wednesday, October 12<sup>th</sup> at 11:59PM**. Like other assignments this is Pass/Fail. I will only fail those that do not represent a serious attempt to engage with the question and reflect on one’s own experience.

In week 14, I will release the final self-reflection exercise via canvas. This must be completed by **Monday, December 5<sup>th</sup> at 11:59PM**. It will be assessed as above.

## THE TERMS AND CONDITIONS

*Academic Integrity and Collaboration:*

Honesty and transparency are important features of good scholarship. On the flip side, plagiarism and cheating are serious academic offenses with serious consequences. If you are discovered engaging in either behavior in this course, you will earn a failing grade on the assignment in question, and further disciplinary action may be taken.

Your discussion responses, summative essays, and reflective exercises should be crafted and written on your own. You may talk with others about your ideas—you may even use the ideas discussed in class seminars—but these ideas must be made your own. That means working by yourself to develop your own ideas, providing your own reasons, and explaining things in your own words.

You are required to cite all sources you use in your submitted work. This includes both direct quotations and cases where you use someone else’s ideas. “Sources” include papers, journals, conversations, anything found on the internet, and so on. Basically, if the thought did not originate with you, you should provide an in-text citation and a reference list. For a clear description of what counts as plagiarism, cheating, and/or the use of unauthorized sources, please see the Student Code of Conduct: <http://www.catalog.gatech.edu/rules/19>.

If you have questions about my integration of the university’s honor code into this course, please do not hesitate to ask: my aim is to foster an environment where you can learn and grow, while ensuring that the work we all do is honest and fair.

For more information about Georgia Tech’s standards with respect to academic integrity, you can also check out the following link: <http://honor.gatech.edu/>

*Accommodations for Students:*

If you wish to request an accommodation due to a documented disability, please inform me and contact Disability Services as soon as possible. They can be reached at [dsinfo@gatech.edu](mailto:dsinfo@gatech.edu) or 404-894-2563 (voice)/ 404-894-1664 (TDD).

I encourage you to discuss with me what you need to succeed—if you need direction, assistance or accommodation, please get in touch with me as soon as possible. I also encourage you to make use of the academic and pastoral resources at <https://success.gatech.edu>

*Extensions, Late Assignments:*

Time management is important. It is especially important in this course where I will not be monitoring your work towards the grading contract over time. You may submit all your

discussion responses on the final day (December 5<sup>th</sup>), for instance, but you risk some of these being marked “fail” without any time to resubmit them.

Late submissions are not accepted for the discussion responses, reflective exercises, or summative essays. Late completions of Perusall readings are also not accepted.

Finally, note that extensions will not generally be permitted, but if you think you are subject to an exceptional circumstance, please discuss it with me outside of class (and as soon as possible).

*Student-Faculty Expectations and statement on inclusion:*

To produce a positive teaching and learning environment, instructors and students must partner with one another in and out of the classroom. Mutual respect is at the heart of such a partnership and is characterized by respectful language and imagery, punctuality and care for others' time, clear and thorough communication, access to resources, and an openness to dialogue and debate. As a Georgia Tech faculty member, I am committed to such respect and I invite you to join me in working towards the best possible learning environment, so that all can meet their highest ambitions. Please explore Tech's policies on this for more information:

<https://catalog.gatech.edu/rules/22/>

As part of this, I am committed to students from all diverse backgrounds and perspectives. I see such diversity is a resource, strength, and benefit and will endeavor to present materials and activities in class that respect and support this diversity, including (but not limited to): gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture.

I encourage and appreciate suggestions for ways that the classroom can better support learning, inclusion, and the effectiveness of the course for you personally, or for other students or student groups.

*Student Use of Mobile Devices in the Classroom:*

As research on learning shows, unexpected noises and movement automatically divert and capture people's attention, which means you are affecting everyone's learning experience if your cell phone or laptop makes noise or is visually distracting during class. While you may take notes on your laptop, but I request that you turn the sound off so that you do not disrupt other students' learning.