Course Description
In this course we’ll explore varieties of representational ‘architecture’: how representational systems use a physical basis, rules for meaning, and principles of interpretation in different ways and to different ends.

Much theorizing about thought treats it in terms of language: thought is argued to be analogous to language in certain ways, or even to be necessarily linguistic in form. This makes some sense for humans, who tend to talk a lot by nature. But what should we infer about how other animals think? And how do other representational formats work differently from language? For instance, what can be represented in a map? Do pictures have parts? And how do movies and novels of the same story differ in what they represent and what they leave to their audience to conclude?

Course Goals
In this course, you will learn to:
• understand key similarities and differences among types of minds, and how to investigate what produces and explains these differences.
• understand key differences and similarities among types of representational systems, and why they work in the ways they do.

My hope is that in the long term – say, five years – you develop more curiosity about various ways of thinking and communicating about the world, among both animals and humans.

In pursuing these course-specific goals, you will also acquire the following general skills:
• the ability to engage in close reading of sophisticated arguments from a range of disciplines.
• the ability to articulate clear, structured, well-supported arguments for your own conclusions.
• the ability to engage in respectful, reasoned, and passionate debate with your peers about complex topics that lack clear answers.

Course Requirements
• Class attendance & participation (15% of course grade).
• Weekly blog posts (20% of course grade).
• Group discussion guide (15% of course grade).
• Two short papers, 2-3 pages (15% each of course grade).
• A final paper, 7-8 pages (20% of course grade).
• There is NO final exam.

Attendance and Participation
This course will function as a collaborative investigation of a series of questions, rather than as the transmission of a set of facts or the critique of a set of claims. We’ll spend a significant amount of time, in small groups and as a whole, figuring out what questions we should be asking and how to interpret the possible answers. Thus, the class depends on your active participation, both in and outside of class. To cultivate a productive intellectual community, we need to establish good practices for respectful, inclusive discussion.
The assigned readings are initial resources for conducting our investigation. You cannot contribute meaningfully to the course unless you read them (and bring them with you to class). The assigned articles are often complex, and come from multiple disciplines, so you need to read them with attention and patience.

To make our weekly meetings as focused and productive as possible, you will do two things each week outside of class.

**Weekly posts**

*Every* week, *everyone* will post one paragraph to the relevant week’s Sakai forum. The main point of your post is to *pose a question* for in-class discussion. But you need to *motivate* your specific question by explaining how it connects to addressing the week’s overall topic. You need to *contextualize* your question by grounding it in specific passages of the assigned readings (or in other readings that you think are relevant; if so, provide a link and explain the connection). And you need to sketch out a *next step* for addressing your question: by setting out some possible answers, suggesting how to find out the answer, etc.

Posts are due on **Friday night**, and will be graded on a 0-5 point scale, based on how specific, informed, and relevant your question is. You can *miss or drop 2 posts* over the course of the entire semester without penalty.

**Group discussion guide**

*Every* week, *one group* will digest these questions and produce a slate of *4 to 6 questions* for in-class discussion. These questions should be stated, contextualized, and elaborated in a *1 page handout* *(maximum!)* which you *email to me* by **Monday at 3 PM**.

We’ll (usually) spend the first half of each class in small groups addressing those questions, with the group leaders rotating through the groups to explain their questions and guide discussion. (So the questions should be ones that can be usefully discussed in parallel, not just in sequence.)

**Other Assignments and Expectations**

The first two papers will be short and highly structured; the third will ask you to provide your own take on an issue from the course. Papers should be **blinded** and submitted as .pdfs through Sakai **before the start of class** on the due date. Except in extreme conditions, extensions must be granted well before the due date; **late papers** will be downgraded 1/3 grade per day.

I expect you to be familiar with and to abide by RU’s policy on academic and intellectual integrity: [academicintegrity.rutgers.edu/academic-integrity-policy](http://academicintegrity.rutgers.edu/academic-integrity-policy)

If you need special accommodations because of a learning disability or for any other reason, please have the Office of Disability Services ([ods.rutgers.edu](http://ods.rutgers.edu)) get in touch with me.

One of my sayings: Being a person is hard! But it’s one of your jobs. I can be more helpful in making accommodations in light of life’s complexities if you are proactive in telling me about them and demonstrate that you are addressing them in a responsible way. If you are struggling with mental health, or just need some extra assistance dealing with life, get in touch with CAPS ([rhscaps.rutgers.edu](http://rhscaps.rutgers.edu)) or Scarlet Listeners ([scarletlisteners.com](http://scarletlisteners.com)), or some other source of support.
Schedule of Topics and Readings (provisional, subject to change)

Rational Animals
1/16: Same or Different?
   Rene Descartes: *Meditation 2; Discourse on the Method* (excerpt)
   David Hume: “On the Reason of Animals”

1/23: The Low End: Simple Animal Reasoning?
   Peter Carruthers: “On Being Simple Minded”
   Ruth Millikan: “Styles of Rationality”

1/30: The High End: Sophisticated Animal Reasoning?
   Sara Shettleworth: “Do Animals Have Insight, and What Is Insight Anyway?”
   Josep Call: “Three Ingredients for Becoming a Creative Tool User”

2/6: Human Irrationalities?
   Daniel Kahneman: *Thinking Fast and Slow*, ch. 1

Representations and Vehicles
2/13: Computationalism or Connectionism?
   Randy Gallistel: “Learning and Representation”
   Gideon Lewis-Kraus: “The Great A.I. Awakening”

FIRST PAPER DUE

2/20: Which Representational Formats?
   John Haugeland, “Representational Genera”

2/27: What Happens Where: Semantics or Pragmatics?
   John Anderson: “Arguments Concerning Representations for Mental Imagery”
   Marcello Frixione and Antonio Lombardi: “Street Signs and Ikea Instruction Sheets: Pragmatics and Pictorial Communication”

Varieties of Representation
3/6: How Does Language Work?
   Elisabeth Camp: “Logical Concepts and Associative Characterizations,” section 2
   Marc Hauser, Noam Chomsky, Tecumseh Fitch: “The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?”

3/13: SPRING BREAK

3/20: How Do Pictures Work?
   John Kulvicki: “Knowing with Images: Medium and Message”
3/27: How Do Maps Work?
   Achille Casati and Roberto Varzi: Parts and Places: The Structures of Spatial Representation, ch. 11
   Elisabeth Camp: “Thinking with Maps”
   SECOND PAPER DUE

4/3: How Do Diagrams Work?
   Jill Larkin and Herbert Simon: “Why A Diagram is (Sometimes) Worth 10,000 Words”

4/10: How Do Movies Work?
   Gregory Currie: “The Long Goodbye: The Imaginary Language of Film”
   Tim Smith, Daniel Levin, and James Cutting: “A Window on Reality: Perceiving Edited Moving Images”

4/17: How Do Comics Work?
   Scott McCloud: “The Visual Magic of Comics” (TED talk)

4/24: Review and Wrap-Up

Monday May 7th, 5 PM: FINAL PAPER DUE