

Class Meetings: Tues/Thurs 2:00-3:20PM, 211 HL

Instructor: Prof. Robert Van Gulick

RVANGUL@syr.edu

Office Hours: Online Zoom Wed 2:00 – 3:30PM & other times by appointment.

Texts: (no texts required for purchase – all on Blackboard)

(Many reading will be from two books.)

- N. Stillings et. al. *Cognitive Science: An Introduction*. (relevant parts available on Blackboard)
- P. Johnson-Laird *The Computer and the Mind* (relevant parts available on Blackboard)
- Many other Blackboard readings

Course objectives: To provide an introduction to the field of Cognitive Science. By the end of the semester students should have a basic understanding of the sorts of research done within the field of Cognitive Science and the sorts of interdisciplinary relations between the various fields (Psychology, Neuroscience, Philosophy, Linguistics & Computer Science) that participate in Cognitive Science.

The course will offer a general survey of the field with special emphasis on problems related to vision, memory, reasoning and the use of language.

Course requirements:

1. **Keeping up with the readings;** that means doing the readings *before* the class.
2. **Participating in class discussions.**
3. A **Midterm exam – take-home format.** (to be posted Fri 10/15, due Fri 10/22)
4. A **Final exam – take-home format.** (to be posted Thurs 12/9, due Thurs 12/16)
5. A **5-7 page research paper with student-exchange and peer-comments.**
6. **Occasional short (one page or so) assignments.**
7. **One or two group presentations.**

Basis of course grade:

midterm exam = 30%,

final exam = 30%,

paper & peer commentary = 30%,

participation and short assignments = 10%

First Reading Assignment - Introduction

For Week of Tues. 8/31 & Thurs 9/2

- Stillings: Chapter 1 "What is Cognitive Science?" pp. 1-14 (Blackboard, Content tab)
- Johnson-Laird *The Computer and the Mind* : Prologue & Chap 1 (Blackboard, Content tab)

Readings for Parts I & II - Other parts will be distributed later.

Part I – Vision

Early Vision :

- Intro to Cog Sci: 12.1 & 12.2 (on Blackboard)
- Computer & Mind: Chap. 4 (on Blackboard)

Middle Vision:

- Intro to Cog Sci: 12.3 (on Blackboard)
- Computer & Mind: Chap. 5 (on Blackboard)
- Tomaso Poggio "Vision by Man and Machine" (Blackboard)
- Oliver Sacks "Stereo Sue" (Blackboard)

Late Vision:

- Intro to Cog Sci: 12.4 & 12.5 (on Blackboard)
- Computer & Mind: Chap. 6 (on Blackboard)
- Oliver Sacks "Face-Blind" (Blackboard).
- M. Nijhuis "Friend or Foe? Crows Never Forget a Face it Seems" (Blackboard)

Imagery

- Intro to Cog Sci: 2.7 (on Blackboard)
- Oliver Sacks, "The Mind's Eye" (Blackboard).

Part II Memory

- Stillings et al *Cognitive Science: an Introduction* (all on Blackboard)_____

Section 3.3 "Memory"

Section 2.4 "Propositional Representation"

Section 2.5 "Schematic Representations"

Section 2.6 "Cognitive Processes, Working Memory & Attention"

Section 2.8 "The Acquisition of Skill"

Section 2.9 "Controlled and Automatic Processing"

Section 2.10 "The Connectionist Approach to Cognitive Architecture"

- Johnson-Laird *The Computer and the Mind* (all on Blackboard)

Chapter 8 The Components of Memory

"Plans and Productions"

Distributed Processing"

Chapter 9
Chapter 10 "Parallel

- From MIT Encyclopedia of Cognitive Science (on Blackboard)

- "Memory"

- "Working Memory",

"Memory - Human Neuropsychology",

"Memory Storage - Modulation of"

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- Eleanor Loftus "Leading Questions and Eye Witness Report". (Blackboard).

- Oliver Sacks, "The Abyss". (Blackboard).

- Joseph LeDoux "Emotion Memory and the Brain.(Blackboard).

- Bruce Bower "Partners in Recall (Blackboard).

• SPECIAL NEEDS - All special needs and disabilities will be gladly accommodated in accord with SU POLICY STATEMENT ON ACCOMMODATION FOR DISABILITIES AND SPECIAL NEEDS:

Students who are in need of disability-related academic accommodations must register with the Office of Disability Services (ODS), 804 University Avenue, Suite 303, (315) 443-4498. Students with authorized disability-related accommodations must ***provide a current Accommodation Authorization Letter from ODS to the instructor and review these accommodations with the instructor.***

Accommodations, such as exam administration, are not provided retroactively; therefore, planning for accommodation as early as possible is necessary. For more information, see the Office of Disability Services, <http://disabilityservices.syr.edu>.

* If you have any such disability, please ***make an appointment to meet with me early in the semester to discuss the specifics.***

SU POLICY STATEMENT ON ACADEMIC INTEGRITY:

Syracuse University's [Academic Integrity Policy](#) reflects the high value that we, as a university community, place on honesty in academic work. The policy holds students accountable for the integrity of all work they submit and for upholding course-specific, as well as university-wide, academic integrity expectations. The policy governs citation and use of sources, the integrity of work submitted in exams and assignments, and truthfulness in all academic matters, including course attendance and participation. The policy also prohibits students from: 1) submitting the same work in more than one class without receiving advance written authorization from both instructors and, 2) using websites that charge fees or require uploading of course materials to obtain exam solutions or assignments completed by others and present the work as their own. Under the policy, instructors who seek to penalize a student for a suspected violation must first report the violation to the Center for Learning and Student Success (CLASS). Students may not drop or withdraw from courses in which they face a suspected violation. Instructors must wait to assign a final course grade until a suspected violation is reviewed and upheld or overturned. Upholding Academic Integrity includes abiding by instructors' individual course expectations, which may include the protection of their intellectual property. Students should not upload, distribute, or otherwise share instructors' course materials without permission. Students found in violation of the policy are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered, as described in the Violation and Sanction Classification Rubric. Students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice.

Academic Integrity in COG 301

Academic integrity is taken seriously in COG 301, and any suspected violations will be thoroughly investigated and sanctions imposed if a violation is determined to have occurred. Intentional violations will typically result in a grade of "Disciplinary F" for the course.

Students will be given full opportunity to respond to any charges and retain the right to appeal any decision or sanction to the A&S College Committee on Student Standards.

In all cases in which a violation is determined to have occurred a report will be sent to the Office of Academic Integrity for its information in **accord** with University policy (even when the matter has been dealt with internal to the course.)

All students are expected to fulfill their course work in an ethical manner, particularly with respect to any work - whether a paper, quiz, or exam - submitted as part of the basis for grading in the course. Any work submitted by the student is done so with the understanding that it is his or her own work product.