

San José State University
College of Humanities and the Arts/Philosophy
Phil 57, Introduction to Logic and Critical Thinking, SEC: 06, Fall 2015

Instructor: Michael A. Rubio

Office Location: **Faculty Office Building rm. 232.** (The Faculty Office Building is a two-story building between the Spartan Complex and Dwight Bental Hall. English is on the first floor. Philosophy is on the second floor.)

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Office Hours: Monday 2pm to 3pm, Tuesday 5pm to 6pm and by appt.

Class Days/Time: TuTh 12:00pm – 1:15pm

Classroom: Dudley Moorhead Hall 208

Prerequisites: From the catalogue: English Remediation completed or a post baccalaureate.

Course Format: Seminar (In Person), SJSU Main Campus, Letter graded.

Units: 3

Course Description

Catalogue course description:

Logic and Critical Reasoning, PHIL 57, Fall, 2015.

Basic concepts of logic; goals and standards of both deductive and inductive reasoning; techniques of argument analysis and assessment; evaluation of evidence; language and definition; fallacies. GE Area: A3 or C2.

The goal of this class is to foster a disposition to use critical thinking skills in the examination of information presented to the individual via the media (internet, television, radio, etc.), texts, and interpersonal encounters. We will begin with an examination of the central role of arguments in persuading individuals to accept claims about the world and society. In our examination of arguments we will seek to distinguish between arguments that are strong or weak, employ fallacious reasoning versus non-fallacious reasoning, and arguments that employ deductive versus inductive reasoning to arrive at conclusions. In addition, we will also explore the criteria of valid arguments, the credibility of sources, persuasive and cogent argumentative writing and critical reading skills, informal fallacies and cognitive bias. **The class will mix lecture, discussion, and in-class activities.**

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

- Identify and analyze arguments.
- Identify fallacies within arguments.
- Identify and employ deductive and inductive reasoning.
- Identify potential cognitive biases and show an understanding of the role of metacognition
- Employ basic concepts of formal logic including proofs of validity.
- Be able to employ problem-solving strategies across different academic domains of inquiry.

Required Texts/Readings

Textbooks

[Available at Spartan Books and such online sites as Amazon.com]

Heuer, Richards J. *Psychology of Intelligence Analysis*. (Washington, D.C.: Center for the Study of Intelligence, Central Intelligence Agency, 1999). PDF. Please go to <https://www.cia.gov> and search for “*Psychology of Intelligence Analysis*.” and download the PDF. We will only be using Part III of the book.

Kern, Daniel R. *A Formal Introduction to Critical Thinking*. 2nd Edition. (Lulu.com, 2012). ISBN: 9781105978708

Fisher, Alec. *The Logic of Real Arguments*. 2nd Edition. (Cambridge: Cambridge University Press, 2004). ISBN: 9780521654814 (**Amazon.com or Barnes and Noble have used copies starting at \$2.45. You can also rent the book from the Bookstore or a site like chegg.com**)

Lanier, Jaron. *You Are Not a Gadget: A Manifesto*. (Vintage Press or Penguin: 2011). (**Used copies at Amazon.com start at \$0.54**)

Other Readings

Will be handed out in-class or sent via email. This information will be listed in the course schedule or will be given to you later in the semester.

Classroom Protocol

Attendance. You should attend all class meetings since critical thinking (CT) is a skill-based subject and the more you are exposed to the material the more comfortable you will feel employing CT in real life.

Class Manners. Absolutely no racial, ethnic, sexist, homophobic, transphobic slurs or other derogatory comments will be allowed or tolerated.

You should turn off cell phones in class. If you think you will need to leave the class early please let me know about it at the beginning of the class and sit near the door so as to leave unobtrusively. You should not eat, sleep, read the newspaper, use offensive language (see above), or talk out of turn in class (raise your hand to ask a question). **Do not use computers to do anything unrelated to the class.** At all times, show courtesy to your teacher and to other students.

Tardiness. You should be in class at the beginning of the class period but I understand parking and other factors can sometimes make all of us run late so if you are late, just quietly come into class and grab a seat.

Instructor no show: If I have not arrived within 20 minutes of the start time of class you may leave. If I have to cancel class I will try to email everyone as soon as possible so you do not have to wait around.

Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in [University Policy S12-3](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

NOTE that [University policy F69-24](http://www.sjsu.edu/senate/docs/F69-24.pdf) at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states that “Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

University Policies

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s [Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) section at <http://info.sjsu.edu/static/catalog/policies.html>.

Add/drop deadlines can be found on the current academic year calendars document on the [Academic Calendars webpage](http://www.sjsu.edu/provost/services/academic_calendars/) at http://www.sjsu.edu/provost/services/academic_calendars/. The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the [Advising Hub](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>.

Consent for Recording of Class and Public Sharing of Instructor Material

University policy: “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.” My verbal approval is sufficient for one class session. To obtain my permission to record more than one class session we would both have to sign an agreement. Recording of other students or guest speakers would require their permission as well. “Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

Academic integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The [University Academic Integrity Policy S07-2](http://www.sjsu.edu/senate/docs/S07-2.pdf) at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of

Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) is available at <http://www.sjsu.edu/studentconduct/>.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. [Presidential Directive 97-03](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the [Accessible Education Center](http://www.sjsu.edu/aec) (AEC) at <http://www.sjsu.edu/aec> to establish a record of their disability.

Accommodation to Students' Religious Holidays

San José State University shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before the add deadline, the student must notify the instructor, in writing, at least three days before the date that he/she will be absent. It is the responsibility of the instructor to make every reasonable effort to honor the student request without penalty, and of the student to make up the work missed. See [University Policy S14-7](http://www.sjsu.edu/senate/docs/S14-7.pdf) at <http://www.sjsu.edu/senate/docs/S14-7.pdf>.

Grading Policy

- 20% First essay
- 20% Second essay
- 30% Midterm
- 30% Final Exam [see schedule below for date and time]

The course grade will be the sum of the four grades. The first essay is worth 20 points, the second essay is worth 20 points, the midterm is worth 30 points, and the final is worth 30 points.

100-93=A; 92-89=A-; 88-86=B+; 85-83=B; 82-79=B-; 78-76=C+; 75-73=C; 72-69=C-; 68-66=D+; 65-63=D; 62-59=D-; 58 and below =F

Assignments

Essay #1: Devil's advocate paper. Select a position on an issue that is contrary to what you currently hold. Some examples, if you are pro-life write a paper advocating for a pro-choice position on abortion. If you believe the United States is correct in using unmanned drones to target suspected terrorists then take the opposite position and write a paper against the use of drones. The paper should be 6 to 8 pages long. You will need 3 to 5 sources. It will follow the Chicago Style format for organization and citation of sources. It will require a cover sheet and bibliography at the end of the paper. The essay is worth 20 points.

Essay #2: You will respond to and critically evaluate the argument presented in the book *You are not a Gadget: A Manifesto* by Jaron Lanier. Do you agree or disagree with Lanier's argument? Does his argument have any logical fallacies? How persuasive is his argument? What counter-arguments did Lanier address or not address? What is your conclusion and why?

This essay should be slightly longer than the first essay since you will have to recap and explain Lanier's argument and the context in which it is framed in addition to your own reasons why you support or disagree with Lanier. The paper should be between 8 to 10 pages. It is worth 20 points and I will grade it along the same criteria as below except the emphasis will be more on how you critique Lanier's argument.

Essay grading rubric:

Clarity: 5 points. Do you have a clear thesis and clear structure to the paper? In other words, you should have an introductory paragraph that states your thesis and briefly outlines the reasons (premises) for your stance, followed by paragraphs dedicated to each reason (premise), and a concluding paragraph.

Logic: 5 points. Do the reasons (premises) you present support your conclusion (stance)? Is your argument free from logical fallacies?

Persuasive power: 5 points. Does your paper engage the reader by using good writing and a good narrative flow?

Counter-arguments and other points of view: 5 points. Does your paper address potential counter-arguments and give them a fair hearing? In other words, are you able to keep an open-mind and be mindful that your argument is not the final word on the subject but the beginning of a dialogue or entrance into a wider debate.

(You are allowed to rewrite your papers. If the rewrite results in a higher grade that is what I will count. I will accept rewrites up until the last day of instruction in class.)

Late paper policy: since you have the option to rewrite your papers I will not accept late papers. I would rather have you turn in something very rough and then rewrite it. For example, the first essay should be 6 to 8 pages but you only have 4 pages done, what should you do? Turn in what you have, read my comments and then resubmit it to me by the last day of instruction. Turning in papers late gets you off schedule and it gets me off schedule. **The point is: turn in something!** Writing is about revision. Due to the class size I cannot allow more than one rewrite per paper. As noted above, I will accept rewrites of either or both papers up until the last day of instruction.

Mid-term: The mid-term examine will consist of 30 multiple-choice questions. You will be asked to identify various cognitive biases and their relation to reasoning, to identify the parts of an argument and to identify common logical fallacies in short passages of text. It will be given in-class and you will have the entire class period to complete the exam.

Final exam: The final exam will be short-answer and essay format. The final exam will be given in-class on the date scheduled by the University. The final exam will be cumulative but will emphasize reading longer passages and discerning whether the author presents a strong or weak argument, whether the argument is employing

deductive or inductive reasoning, symbolic translation of statements into formal logic, and one or two questions that require you to translate an argument into symbolic form and use the rules for natural deduction to test for the validity of the argument. These questions will be weighed less than the other questions, **the goal is to try** (so don't stress too much about this part of the exam). Also for these questions I will provide you with the rules for natural deduction so you will not have to memorize them.

SJSU Writing Center

The SJSU Writing Center is located in Clark Hall, Suite 126. All Writing Specialists have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the [Writing Center website](http://www.sjsu.edu/writingcenter) at <http://www.sjsu.edu/writingcenter>.

Student Technology Resources

Computer labs for student use are available in the [Academic Success Center](http://www.sjsu.edu/at/asc/) at <http://www.sjsu.edu/at/asc/> located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.

Learning Assistance Resource Center

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. The LRAC website is located at <http://www.sjsu.edu/larc/>.

Peer Mentor Center

The Peer mentor Center is located on the 1st floor of Clark Hall in the Academic Success Center. The Peer Mentor Center is staffed with Peer Mentors who excel in helping students manage university life, tackling problems that range from academic challenges to interpersonal struggles. On the road to graduation, Peer Mentors are navigators, offering “roadside assistance” to peers who feel a bit lost or simply need help mapping out the locations of campus resources. Peer Mentor services are free and available on a drop-in basis, no reservation required. The Peer Mentor Center website is located at <http://www.sjsu.edu/muse/peermentor/>.

Phil 57 / Introduction to Logic and Critical Thinking, Fall 2015, Course Schedule

The schedule is subject to change with fair notice both in class and by email.

Course Schedule (readings are to be done before class. For example, for week two you have to read chapter 1 from *A Formal Introduction to Critical thinking* prior to 8/27)

Week	Date	Topics, Readings, Assignments, Deadlines
1	8/20	Introduction. No reading assignment. Recommended: watch the TED talk by Noreena Hertz entitled “How to use experts- and when not to,” located at https://www.ted.com/talks/noreena_hertz_how_to_use_experts_and_when_not_to
2	8/27, 8/29	Argument Identification: Read chapter 1 from <i>A Formal Introduction to Critical Thinking</i> (p. 1 to 8).
3	9/1, 9/3	Argument Analysis: Carefully Read chapter 2 from <i>The Logic of Real Arguments</i> (p. 15 to 28). Also read chapter 5 from <i>A Formal Introduction to Critical Thinking</i> (p. 122 to 126).
4	9/8, 9/10	Argument Analysis: Read chapter 4 from <i>The Logic of Real Arguments</i> (p. 48 to 69). Make sure you try to do the extraction of the arguments by yourself before looking at the author’s answers. These are complex arguments so don’t get discouraged. Discussion of first essay. Discuss Lanier book.
5	9/15, 9/17	Introduction to Informal Fallacies. Read chapter 6 from <i>A Formal Introduction to Critical Thinking</i> (p. 127 to 146). Begin Reading: <i>You are not a gadget: A Manifesto</i> by Jaron Lanier. Aim to read 25 pages per week. Take notes as you go along. Start early so you have time to start putting together a rough draft for yourself.

Week	Date	Topics, Readings, Assignments, Deadlines
6	9/22, 9/24	Informal Fallacies continued. 2nd Discussion of first essay.
7	9/29, 10/1	<p>Essay #1 due Thursday 10/1/2015 by the end of class.</p> <p>Cognitive Bias: Read chapters 2, 9 and 10 from <i>The Psychology of Intelligence Analysis</i> (p. 7 to 16 and p. 111 to 126). Homework: Argument Analysis: Read chapter 6 from <i>The Logic of Real Arguments</i> (p. 82 to 98). Focus on trying to do the argument extraction on your own.</p>
8	10/6, 10/8	<p>Cognitive Bias: Read chapters 11, 12 and 13 from <i>The Psychology of Intelligence Analysis</i> (p.127 to 172).</p> <p>Homework: Argument Analysis: Read chapter 7 in <i>The Logic of Real Arguments</i> (p. 99 to 114). Focus on trying to do the argument extraction on your own.</p> <p>Thursday: Review for Midterm.</p>
9	10/13, 10/15	Midterm: Tuesday 10/13/2015, Thursday: Finish up Cognitive Bias if necessary or we will begin talking about formal logic.
10	10/20, 10/22	<p>Finish up Cognitive Bias: Read chapters 11, 12 and 13 from <i>The Psychology of Intelligence Analysis</i> (p.127 to 172).</p> <p>Introduction to Formal Logic (The Categorical Syllogism). Read chapter 2 from <i>A Formal Introduction to Critical Thinking</i> (p. 10 to 19 and 33 to 36). In general this will be a short discussion. I will only briefly discuss Venn Diagrams.</p> <p>You should be finishing up the Lanier book if you started in week 5.</p>

Week	Date	Topics, Readings, Assignments, Deadlines
11	10/27, 10/29	Formal Logic (Propositional Logic). Read chapter 3 from <i>A Formal Introduction to Critical Thinking</i> (p. 59 to 73).
12	11/3, 11/5	Formal Logic Continued. Translating statements from English into formal (symbolic) form and discussion of the Lanier book. Continue Reading <i>You are not a gadget: A Manifesto</i> by Jason Lanier.
13	11/10, 11/12	Formal Logic: Introduction to Natural Deduction. Read chapter 4 from <i>A Formal Introduction to Critical Thinking</i> (p. 102 to 120).
14	11/17, 11/19	Formal Logic: Natural Deduction Continued. Tuesday: discussion of Lanier book. Essay #2 due Thursday 11/19/2015.
15	11/24, 11/26	No class Tuesday or Thursday Thanksgiving Holiday
16	12/1, 12/3	This week will be dedicated to talking about innovation and creativity.
17	12/8	Last day of class.
Final Exam	Dec 11th	Final Exam 9:45am to 12:00pm, Dudley Moorhead Hall, Room 208.