

**PSYCHOLOGY 315W:
COGNITIVE NEUROSCIENCE
SPRING 2020
SYLLABUS**

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Office Hours: MWF 9 – 11 AM; MF 1 – 2 PM & 3 – 5 PM (unless otherwise meeting scheduled); TR 2 – 5 PM

OR GO HERE: <https://swanpsych.com/contact-about-me/>

OR SCHEDULE AN APPOINTMENT: swanpsych.youcanbook.me

My Website: www.swanpsych.com

What you can call me directly: “Dr. Swan”, “Prof Swan”, “Doc” (you may refer to me as “Swan” elsewhere, but not to my face)

Pronouns: He/Him/His

BASIC COURSE INFORMATION

MEETING:

When: Tuesdays & Thursdays 11:00 AM – 12:15 PM

Where: Burgess Hall 205

REQUIRED TEXTBOOK:

Gazzaniga, M., Ivry, R. B., & Mangun, G. R. (2019). *Cognitive neuroscience: The biology of the mind*, 5th Ed. W. W. Norton & Company.

COURSE WEBSITE:

All the course announcements, quizzes, grades, this syllabus, and other resources will be available through the course portal on Brightspace. I will try my best to make the Powerpoint slides used for the lectures available online BEFORE each lecture. However, sometimes life will happen and they might not make it until afterward.

COURSE DESCRIPTION:

The purpose of this course is to introduce you to the newly emerging field of Cognitive Neuroscience. Cognitive Neuroscience strives to understand the relationship between brain function and the mind using a variety of investigative techniques including studies of brain damaged patients, single-cell recordings, neuroimaging, electrophysiological recordings, brain stimulation, and others. We will cover topics ranging from specialized neural processes underlying face perception to brain regions implicated in language processing; from brain regions underlying particular memory systems to the neural processes that give rise to consciousness. In the end, we hope that you will have a better appreciation for how the mind emerges from the brain.

This course fulfills the Analytical Inquiry and Problem Solving (AIPS) General Education 10 Essentials capability. The assessments and rubric are on the last page of this syllabus.

CLASS FORMAT:

The course will consist of short lectures, demonstrations/activities, videos, and class discussion. Reading assignments should be completed before the chapter is discussed in class.

INTENDED LEARNING OBJECTIVES:

The overall goal of this class is to introduce you to the scientific study of how our brains work to make us who we are. This class should prepare you to take more specialized upper level classes in specific areas of cognitive neuroscience. After taking this course, you should be able to...

- ...demonstrate familiarity with basic anatomy and physiology of the brain. (*Assessment: Exams*)
- ...explain how the brain allows us to do everyday behaviors. (*Assessment: Film Analysis; Exams*)
- ...evaluate and solve problems associated with cognition and neuroscience. (*Assessment: Research Proposal*)

COURSE REQUIREMENTS AND GRADING

Take Home Midterm & Final Exams	10% each (20% total)	Various Dates
Research Proposal	40%	DUE: Tuesday, April 28, 2020 by 11 AM
Film Analysis	20%	DUE: Thursday, March 26, 2020 by 11 AM
Online Reading Checks	10%	Various Dates
In-class Participation	10%	Various Dates

GRADING SCALE:

The grading scale I will use for the course is the following:

≥ 93%	A	≥ 80% and < 83%	B-	≥ 67% and < 70%	D+
≥ 90% and < 93%	A-	≥ 77% and < 80%	C+	≥ 63% and < 67%	D
≥ 87% and < 90%	B+	≥ 73% and < 77%	C	≥ 60% and < 63%	D-
≥ 83% and < 87%	B	≥ 70% and < 73%	C-	< 60%	F

NOTE: Grades will not be changed for any reason, except for clerical errors!

A. TAKE-HOME ESSAY EXAMS

- The midterm and final exams for this class will be open-note/resource essay exams. You will answer three (3) long-form essays in a one-week period, due on a specified date in the course calendar.
- Questions will be based primarily on lectures, but I do reserve the right to ask questions directly from the course readings. The midterm will be cumulative from the first half of the semester. The final exam will be cumulative from the second half of the semester.
- **LATE/MAKE-UP POLICY:** These Take-home Exams are due on the date on the Course Calendar, no exceptions. However, if you must miss the deadline due to some emergency, then I will grant a two day-extension **ONLY**. This is only offered if I am notified prior or the day of the deadline. If you are somehow incapacitated and cannot let me know the situation, then we will discuss on a case-by-case basis, but further extension will be rare.
- A take-home exam is a not exactly the time to engage in academic dishonesty. **I will take ANY plagiarism or cheating attempt (whether intended or not) as academic dishonesty and it will result in a grade of zero (0) for the exam and reporting of the incident to the Division Chair and Provost.** If you are unsure if something is plagiarism, please see me. Plagiarism includes using someone's ideas or words as your own (including improper in-text citation), using a classmate's words or ideas as your own, or contracting your essay responses (paying someone else to write your answers). **You MAY NOT discuss the questions or responses of either exam with another classmate, even for clarification. I am your source of clarification if question wording is confusing!**

A. RESEARCH PROPOSAL

- For the term project, you will create a research proposal to test/generate a solution for an existing research question or problem in the realm of cognitive neuroscience. You will evaluate the existing literature of a topic within the field and generate a new hypothesis to test it. You will use one of the methodologies discussed in class to achieve your test. You will want to imagine that you have access to such equipment and resources in order to test your hypothesis(es).
- This is the signature assignment for the Analytical Inquiry and Problem Solving (AIPS) General Education capability.
- You must reach capability on all Student Learning Outcomes (SLOs; Milestone 3 or 2) in order to receive GE credit; this is independent from your score on the Final Proposal and other assignments, but closely linked to capability.

B. SHORT FILM ANALYSIS PAPER

- You will submit a short film analysis report (2-3 pages, double-spaced, excluding references) on the film shown in class: *The Matrix* (1999) (e.g., memory, schemas, emotion, morality, etc.). You should cite at least TWO academic papers outside those on the course reading list. Your analysis should explore at least three concepts discussed in class. How does the film portray attention, memory, or neuroscience? Is the portrayal plausible with what you know about brain anatomy and function?

C. READING CHECKS:

- There will be an online, self-graded check on the readings available on Brightspace. These will be multiple choice, and 5 questions each. Since these checks are low-stakes and are only meant to help you digest the material for the in-class discussion and take-home exams, you will have 2 attempts for each one. The attempt that achieves the highest score will be recorded. Don't fret too much about these checks; just try your best—they are meant to keep you up-to-date on the readings!

D. PARTICIPATION GRADE:

- Small assignments will be given during class, and sometimes in the beginning, on random days throughout the semester. Points will be given out for completing the assignments that will count toward your participation grade. It is highly recommended that you arrive to class on time in order to complete these assignments.

COURSE POLICIES

1. GETTING INFORMATION:

- **EMAIL PROTIP:** I use email for almost all communications/announcements. If you do not check your Eureka email often, forward it to an address you do check. **YAHOO ADDRESSES GET SENT TO MY SPAM FOLDER.** The best way to contact me is always via email. If you cannot come to office hours and/or decide to send an email, be sure to use the following format so that I can help you:

To:
 Subject Line: "PSY 315: (insert your topic here)"
 From: your full address

Dear (insert name of person you are contacting here),

Hello, my name is (your full name here) and I am a student taking PSY 315/Cognitive Neuroscience. I have a question regarding (insert your question here).

(Considerate closing of your choosing),

Your full name

A word of caution: I will do my best to reply within 48 hours. Depending on the nature (and popularity) of your question, my answer may be direct OR posted as a general class announcement on Brightspace. Please hold off on resending a message until 48 hours have passed. Finally, I may not respond to emails between the hours of 8 PM and 8 AM or at any hour on the weekends, so please keep this in mind when deciding whether to resend the message.

- **OFFICE/STUDENT HOURS:** As you may note from the first page of this syllabus, I will be in my office a lot. I have an **open-door policy**: stop by whenever within the time frames and I will be happy to chat. Additionally, if my door is open during the day and it's not one of the above time frames, I am available. If my door is closed, but you know I'm here, then you should come back. You can check my website for these times rather than emailing me to ask me if I'll be there. You might want to email me to let me know you're coming or make an appointment, but walk-ins are welcome. I will specify whether there are circumstances that will cut into my office time as needed.
 - i. **AN IMPORTANT NOTE ON OFFICE/STUDENT HOURS:** In case you're not aware, office hours are actually FOR STUDENTS. They're a chance for you to get help on assignment, go over material covered in class, talk about some connections between class material and your other academic or extracurricular work, and so on. They are generally student-directed, but I can help you formulate questions to ask based on my sense of your strengths and weaknesses. I STRONGLY ENCOURAGE you to take advantage of this time!

2. LATE WORK AND MAKE-UP POLICY:

- If participation in university-sponsored events (e.g., athletics) or observance of a religious holiday or other sanctioned event prevents your attendance, you must contact me prior to the relevant date, and you must have any appropriate documentation. If an assignment is due on that date, arrangements must be made to complete the assignment ahead of time, if possible.
- Unless otherwise stated, all assignments are due at the beginning of class (unless otherwise noted for electronic assignment submissions). Late assignments will only be accepted in the case of extraordinary circumstances and appropriate documentation, and may involve point/percentage deductions (standard penalty is 10%/24-hr period; I reserve the right to change the penalty in either direction). Please alert me to these extraordinary circumstances by email within 24 hours of the missed class, and we will set up a time to discuss these on a case-by-case basis.
- Refer to the Quiz section above for details about Quiz Make-up policies.
- **BENEFIT OF DOUBT POLICY:** However, I recognize that sometimes life happens; therefore, I have built some flexibility into the course to allow for illness, other obligations, and bad days.
 - i. Your lowest Participation assignment and Reading Check assignment will be dropped from your final category computation. You will not be able to make these up—they are dropped for whatever reason you missed, no questions asked!

3. GRADE DISPUTE POLICY:

- If you disagree about how your term paper was graded, you must dispute the issue *in writing* (not email). Write a paragraph about why you think your attempt was correct/sufficient and turn it (with the original assignment) in to me at the lecture following the return of the relevant assignment. Only reasonable and well-justified complaints will be considered, and all decisions are final. Please note that if you submit a complaint, I will re-grade the entire assignment, and your grade could increase, decrease, or remain the same. **This policy does not apply to final course grades.**

4. CLASS ETIQUETTE:

- **Please do not use your cell phones during class.** I would prefer them to be put on silent or off and away in your bag/pocket. If your cell phone goes off during class or quiz, please silence it immediately; do not let it ring through. I will remind everyone prior to exams to make sure their phones are turned off. Please refrain from text messaging during class. I know you think you're being subtle; I assure you that I can see you texting.
- Please do not leave the class partway through unless it is an emergency; it is very disruptive. If you must leave, please sit near a door or at the edge of an aisle so as to not disrupt your fellow classmates.
- Please have respect for the class, your peers, and yourselves by being fully present in the class. Please avoid anything not relevant to the class, such as sleeping, surfing the Internet/social media, or doing homework for other classes.
- **LATENESS:** Please try to arrive a few minutes before the start of lecture. We will begin promptly at 11 AM, and it can be distracting to me and to your peers if you arrive late. I will try not to keep you late.

5. **LAPTOP & TABLET POLICY:**

- a. Research indicates that taking notes by hand results in significantly better retention of conceptual information than taking notes on a laptop (see Mueller & Oppenheimer, 2014), even when students are engaged in the material (i.e., are not also checking their email or Facebook feed).
- b. Further, laptop use can be distracting in various ways to the entire class. Because my goal is to maximize the likelihood of a favorable learning environment, **I strongly recommend that you not use laptops in class.**
- c. However, laptops will be permitted on a probationary basis; should the use of laptops be taken advantage of or prove distracting to other students, I will revisit this policy then.

6. **ATTENDANCE:**

- **Students who take notes, ask questions, respond to questions, and come to office hours are typically the ones who succeed in this class.**
- Though attendance is not required by College policy, I strongly recommend you attend class prepared and present. As such, you will not be penalized in your grade for missing a class directly. However, I WILL REWARD folks who arrive to class on time and attend each class, most likely with some helpful exam advice, if you catch my drift. If you do happen to miss a class, that's OK, but you will be responsible for *all* material covered in lecture, some of which will not be covered by the textbooks. If you know about an absence beforehand, please send me an email to let me know.

7. **ADVICE FOR COURSE SUCCESS:**

- It is important for all students to realize that there will be a distribution of grades in this class that reflects your mastery of some very technical and often-challenging concepts. Complete mastery of all concepts will earn an "A," good but imperfect knowledge earns a "B," average or adequate knowledge will earn a "C," and poorer knowledge will receive grades of "D" or "F." By these criteria, the majority of grades should (and likely will) be "B/C" grades. Remember that your grade in this course is not a reflection of your general ability or your character.
- **This is a difficult, but not impossible course;** it is my hope that you will find this class challenging but rewarding in terms of the knowledge you will walk away with. If you anticipate having difficulty (or when you are), I strongly urge you to do the following:
 - i. Attend every lecture, and take good notes. While attendance will not be graded, per se, the ability to truly learn and use the material in this class is strongly related to attendance.
 - ii. Review lecture notes on the day of the lecture (before you go to bed). If you need clarification on anything, ask in the next lecture, lab, or office hours. Don't wait until right before the exams!

- iii. Manage your time wisely. This is an intense course with many moving pieces and specific terminology. Familiarize yourself with the syllabus, put important dates in your calendars now, and space out your work – there is just too much to do it at the last minute
- iv. Use the resources available to you – that includes your course materials (especially this syllabus), me, and the many amazing services offered on campus.
- v. Discuss the material with another student. Form a study group. Go to office hours. Ask me questions. **ASK QUESTIONS. ASK ALL THE QUESTIONS—DO NOT ALLOW IN YOUR OWN CONFUSION.**

8. FINAL POINT: I CARE ABOUT YOU

- Eureka College is an institution committed to helping everybody associated with it—students, teachers, administrators, grounds staff, custodians—become their best selves. As a teacher, I become my best self by helping you become *your* best self. That means:
 - **Everything I ask you to do (even stuff you don't like) is intended to help you learn and grow. You can trust me to have your best interests at heart.**
 - My office is always a safe space for you. So is our classroom. If you ever feel that isn't true, *talk to me*.
 - If you need any accommodation—for disability, mental health, or just having a rough week, *talk to me*.
 - If anything in you like is keeping you from doing your best work in our class, *talk to me*. It can be illness (physical, mental). It can be loneliness and homesickness. It can be trouble at home, trouble with family, trouble with relationships. It can be fear for personal safety, food insecurity, homelessness, job loss. Whatever it is, I can't promise a solution, but I can promise to do whatever I can to help you find the resources you need. *Talk to me*.
 - I want our class to be a safe space. To me this means a place where you feel safe expressing your thoughts, working through things. But it also means a space where you are safe from abuse, negativity, bigotry. Some of the topics we deal with may be difficult. We may struggle. We may need to take breaks, come back to things. This is all part of thinking through big ideas. Because these things don't happen right away, but occur over time, brief snapshots of our class are not representative of who we are and what we do. To ensure our class remains a safe space, come *tell me* as soon as possible so I can rectify the situation.

ADDITIONAL COURSE AND COLLEGE INFORMATION

ACCESSIBILITY (ADA) STATEMENT:

The Learning Center, located on the first floor of Alumni Hall, provides academic services to all Eureka College students. Consultations are available in the areas of math and writing. Study groups, individual academic counseling, and course specific tutoring are also available by contacting Jason Zimmerman at x6520 or jzimmerman@eureka.edu.

Any Eureka College student with a disability or other special circumstances requiring accommodations or other consideration in order to successfully complete the requirements of this course is requested to identify himself/herself/themselves to the instructor and discuss the matter privately. This disclosure should be made within the first week of the course so proper accommodations can be made.

ACADEMIC HONESTY AND INTEGRITY STATEMENT:

Eureka College strives to instill individual responsibility and integrity in its students, and expects its students to behave with integrity throughout their time at the College. Any giving or receiving of unpermitted aid on tests or assignments is considered cheating. If a student is uncertain about how to document sources or incorporate materials into a paper, it is his or her responsibility to seek help by speaking to the faculty member, another

professor, or a Writing Center tutor. The College's Academic Dishonesty policy is outlined in the Student Handbook.

Academic dishonesty constitutes a major breach of the trust that exists between the instructor and the student. It includes passing off another's ideas as one's own (plagiarism), any attempt to gain information about a test or exam prior to the test or exam date without the instructor's consent, and providing unauthorized assistance on a test, exam, paper, or other assignment to another student. **Cheating or plagiarizing on a test, exam, quiz, paper, or other assignment will result in a failing grade for the assignment. Further dishonesty will result in failing the course. Students who fail for academic dishonesty will not have the option of withdrawing from the course.**

A specific note on plagiarism: Plagiarism occurs when someone misrepresents the work of another as his or her own. Plagiarism may consist of using the ideas, sentences, paragraphs, or the whole text of another without appropriate acknowledgement, but it also includes employing or allowing another person to write or alter work that a student then submits as his or her own. Although some assignments or projects in this class can be completed in pairs, all writing must be the work of the student whose name is on the assignment, and that student alone. If you are at all uncertain about what constitutes plagiarism, please see me – do not risk your grade or integrity! I also encourage you to meet with me if you suspect that another student in the course has engaged in academic misconduct.

TITLE IX POLICY:

Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

Eureka College is committed to providing a learning, working and living environment that promotes personal integrity, civility and mutual respect in an environment free of sexual misconduct and discrimination. Sexual discrimination violates an individual's fundamental rights and personal dignity. Eureka College considers sexual discrimination in all its forms to be a serious offense. This resource refers to all forms of sexual discrimination, including: sexual harassment, sexual assault, and sexual violence by employees, students, or third parties (Title 20 U.S.C. Sections 1681-1688).

Persons who wish to report any form of sex discrimination may contact the College's Title IX Coordinator. The Title IX Coordinator can assist with all aspects of the reporting procedure and will conduct an investigation into a complaint. Employees of the College can also make an initial report to their immediate supervisor who must report it to the Title IX Coordinator.

IMPORTANT NOTE: I am a mandatory reporter, compelled by both federal/state law and College policy. If you disclose a report of sex discrimination, I must report it to the Title IX Coordinator within 24 hours.

Resources for victims of sexual misconduct:

- The Title IX Coordinator can assist with finding on and off campus resources.
- Tazwood Center for Wellness: (309) 347-5522
- National Sexual Assault Hotline www.rainn.org
- Woodford County Center for Prevention of Abuse: 800-559-7233
- Reassignments – When the survivor and the accused student participate in the same class(es) and/or reside in the same college residence or in proximity to one another, survivors may request that a fair and immediate way to reassign and/or move one of the persons be decided upon by College Administration.

INCLUSIVITY

Every student in this classroom, regardless of personal history or identity categories, is a valued member of this group. Your experiences are valuable and important, and you should feel free to share them as they become relevant to our class. No student in this class is ever expected or believed to speak for all members of a group.

In this classroom you have the right to determine your own identity. You have the right to be called by whatever name you wish, and for that name to be pronounced correctly. You have the right to be referred to by whatever pronouns you wish. You have the right to adjust those things at any point in your education.

If you find that there are aspects of course instruction, subject matter, or classroom environment that result in barriers to your inclusion, please contact me privately without fear of reprisal.

COUNSELING SERVICES:

Provided by Tazwood Center for Wellness, seeing a professional counselor as a Eureka College student is easy and free. Whatever is on your mind, don't be afraid to talk to someone.

Tazwood Center for Wellness visits campus twice a week for on campus counseling appointments. Each student receives 6 free sessions per semester.

Tazwood Center for Wellness
3248 Vandever Ave. Pekin, IL 61554
309-437-5522 (Phone)
309-347-1148 (Emergency Response Services)

CHANGES TO SYLLABUS:

I reserve the right to make policy/course changes to the syllabus at any time with advance notice to students.

TENTATIVE COURSE SCHEDULE

Note: The schedule is subject to change depending on the progress of the course.

Week	Day	Date	Lecture	Lecture Topic	Readings	Assignments Due
1	T	1/14	----	NO CLASS		
	R	1/16	1	Course Introduction		
2	T	1/21	2	Brief History of Cognitive Neuroscience	Ch 1	
	R	1/23	3	Structure and Function of CNS	Ch 2	
3	T	1/28	4	CN Methods I	Ch 3	Proposal Problem Statement
	R	1/30	5	CN Methods II		
4	T	2/4	6	Patient Studies/Methodology		
	R	2/6	7	Hemispheric Specialization	Ch 4	
5	T	2/11	8	Visual Perception I	Ch 5	Annotated Bibliography
	R	2/13	9	Visual Perception II		
6	T	2/18	10	Object Recognition	Ch 6	
	R	2/20	----	NO CLASS – DR. SWAN OUT		
7	T	2/25	11	Attention I	Ch 7	
	R	2/27	12	Attention II		Midterm Qs Released
8	T	3/3	13	Consciousness I	Ch 14	Introduction Draft
	R	3/5	14	Consciousness II		Midterm Questions Due
9	T	3/10	----	NO CLASS – SPRING BREAK		
	R	3/12	----	NO CLASS – SPRING BREAK		
10	T	3/17	----	Film: <i>The Matrix</i>		
	R	3/19	----	Film: <i>The Matrix</i>		
11	T	3/24	15	Language I	Ch 11	
	R	3/26	16	Language II		Film Analysis Due
12	T	3/31	17	Memory I	Ch 9	Proposed Method Draft
	R	4/2	18	Memory II		
13	T	4/7	19	Emotion	Ch 10	
	R	4/9	20	Frontal Lobes & Cognitive Control	Ch 12	
14	T	4/14	21	Social Cognition	Ch 13	
	R	4/16	22	Action	Ch 8	
15	T	4/21	----	Proposal Presentations		
	R	4/23	----	NO CLASS – DR. SWAN AT MPA		Final Exam Qs Released
16	T	4/28	----	Proposal Presentations		Final Proposal Draft Due
F	F	5/1	----	FINAL EXAM PERIOD (3:30 PM – 5:30 PM)		Final Exam Responses Due

Analytical Inquiry and Problem Solving (AIPS) Rubric

Student Learning Outcomes (SLOs)

1. Information Literacy: Critically evaluate and identify potential sources of appropriate and credible information.
2. Define problem/topic scope/ or generate questions by stating assumptions, limitations, seeking information, and clarifying causes.
3. Systematically analyze a work (text, artifacts) or issue to produce an informed conclusion or problem statement.
4. Generate and evaluate strategies to find solutions and/or generate solutions for problems which consider ethical, logical and cultural dimensions.

*capability levels are bolded. Must meet or exceed milestone to reach capability.

AIPS	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
SLO 1 - Evaluate information and its Sources Critically Assessed on Assignment 2	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources after considering the importance (to the researched topic) of the multiple criteria used (such as relevance to the research question, currency, authority, audience, and bias or point of view).	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources using multiple criteria (such as relevance to the research question, currency, and authority). * This is capability	Chooses a variety of information sources. Selects sources using basic criteria (such as relevance to the research question and currency).	Chooses a few information sources. Selects sources using limited criteria (such as relevance to the research question).
SLO 1 - Use Information effectively to accomplish a specific purpose Assessed on Assignments 2 & 3	Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth. Students use correctly all of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Communicates, organizes and synthesizes information from sources. Intended purpose is achieved. Students use correctly all of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information. * This is capability	Communicates and organizes information from sources. The information is not yet synthesized, so the intended purpose is not fully achieved.	Communicates information from sources. The information is fragmented and/or used inappropriately (misquoted, taken out of context, or incorrectly paraphrased, etc.), so the intended purpose is not achieved.
SLO 2 - Existing Knowledge, Research, and/or Views	Synthesizes in-depth information from relevant sources representing various point of view/approaches.	Presents in-depth information from relevant sources representing various point of view/approaches. * This is capability	Presents information from relevant sources representing limited points of view/approaches.	Presents information from irrelevant sources representing limited

Assessed on Assignments 3 & 5				points of view/approaches.
SLO 2 - Understanding limitations and implications Assessed on Assignments 3 & 5	Insightfully discusses in detail relevant and supported limitations, assumptions and implications.	Discusses relevant and supported limitations, assumptions and implications.	Presents relevant and supported limitations and implications. * This is capability	Misses limitations and implications or presents irrelevant and unsupported limitations, assumptions and implications.
SLO 3 - Define a problem Assessed on Assignments 3 & 5	Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.	Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors, and problem statement is adequately detailed.	Begins to demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors, but problem statement is superficial. * This is capability	Demonstrates a limited ability in identifying a problem statement r related contextual factors.
SLO 3 - Analysis Assessed on Assignments 3 & 5	Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to the focus of analysis.	Organizes evidence to reveal insightful patterns, differences, or similarities related to the focus of analysis. * This is capability	Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities.	List evidence, but it is not organized and/or is unrelated focus of analysis.
SLO 3 - Embracing contradictions Assessed on Assignments 3 & 5	Integrates alternate, divergent, or contradictory perspectives or ideas in analysis.	Incorporates alternate, divergent, or contradictory perspectives or ideas to explore in analysis.	Includes (recognizes the value of) alternate, divergent, or contradictory perspectives or ideas in a rudimentary way. * This is capability	Acknowledges (mentions in passing) alternate, divergent, or contradictory perspectives or ideas.
SLO 4 - Proposes Solutions/ Hypothesis Assessed on Assignments 3 & 5	Proposes one or more solutions/hypothesis that indicates a deep comprehension of the problem. Solutions are sensitive to contextual factors as well as ethical, logical, and cultural dimensions of the problem.	Proposes one or more solutions/hypothesis that indicates comprehension of the problem. Solutions are sensitive to contextual factors as well as some of the ethical, logical, and cultural dimensions of the problem. * This is capability	Proposes one solution/ hypothesis that is “off the shelf” rather than individually designed to address the specific contextual factors of the problem.	Proposes a solution/ hypothesis that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.
SLO 4 - Identify strategies Assessed on Assignments 4 & 5	Identifies multiple approaches for solving the problem that apply within a specific context.	Identifies multiple approaches for solving, only some of which apply within a specific context.	Identifies only a single approach for solving the problem that does apply within a specific context. * This is capability	Identifies one or more approaches for solving the problem that do not apply within the context.