Humboldt State University
Course Syllabus for CS 100
Critical Thinking (with Computers)
Fall 2018

Basic Course Information

Instructor:	Sharon Tuttle	
Lecture times and location:	Monday, Wednesday, Friday	11:00 – 11:50 AM, FH 125
Instructor's office hours: ***Office is BSS 322***	Monday, Tuesday, Thursday	5:00 - 6:00 pm
	Wednesday and by appointment	1:00 - 3:00 pm
Instructor's e-mail:	st10@humboldt.edu or sharon.tuttle@humboldt.edu or smtuttle@humboldt.edu	(note: these are all ALIASES to the SAME mailbox)
Instructor's office phone:	(707) 826-3381 (leave message)	
Course public web page:	follow link from: http://users.humboldt.edu/smtuttle/ or follow link from course Canvas site	

Course Description

In this course, we will learn about and apply critical thinking skills, including logical analysis techniques, a gentle introduction to programming, discussions of pseudoscience and logical fallacies, and other topics related to Critical Thinking skills.

CS 100 is a **General Education (GE) - Area A - Critical Thinking** course and meets that particular General Education requirement for students in all majors.

This is NOT the introductory course for the Computer Science degree program! Computer Science majors should take CS 111 (Computer Science Foundations 1) in order to satisfy CS degree requirements.

The primary goal of this course is to help you develop and apply Critical Thinking skills. A secondary goal is how computing can apply in that context. Course work will include some hands-on computing assignments, as well as assignments designed to exercise and nurture your critical thinking skills.

General Education - Area A - Critical Thinking - Learning Outcomes

Upon completing this requirement students will:

- Identify the premises and conclusion of an argument and determine its validity and soundness.
- Analyze, criticize, and advocate ideas.
- Be able to use logic to analyze arguments, and also gain a basic idea of how logical expressions can be

coded into computer language.
- Distinguish deductive from inductive argument forms, identify fallacies, and reason inductively and deductively.
- Distinguish matters of fact from issues of judgment or opinion and reach well-supported factual or judgmental conclusions from a wide diversity of real world examples.

Course Prerequisites

CS 100 has no prerequisites. It is designed to be a course for first-year students. It can be taken by students at all levels, but is best taken as a foundation course that allows students to bring Critical Thinking skills to all academic fields.

Required Course Text, Materials, etc.

- **Critical Thinking - A Student's Introduction** (5th ed), Bassham, Irwin, Nardone, Wallace. McGraw-Hill, 2013, ISBN-13# 978-0-07-803831-0
- **Turning Account License used with either a TurningPoint RF Response Clicker or the ResponseWare application on an iOS or Android device**
  - Clickers (both new and used) are available at the HSU campus bookstore, or can be ordered online – be sure to get the correct type of clicker – the RCRF-03 is best, but the RCRF-02 and RCRF-01 are possible alternatives. The Turning Technologies ResponseWare smartphone app is available in the Apple and Android app stores.
  - **NOTE: whether you use a clicker or the ResponseWare application, ALL students must ALSO purchase a Turning Technologies Cloud license!** You need only one license purchase to cover all HSU courses for the school year, and multi-year licenses are available at a quantity discount.
- Additional required readings may be made available either online, or via resources available through the HSU Library such as the ACM Digital Library and Safari TechBooks Online.

Online Resources

We will be making some use of a free website in this course called **WeScheme** (http://www.wescheme.org/). WeScheme is a Web-based interface for beginning programming that can be accessed from anywhere and runs on all widely-used computer platforms. This means you can work in WeScheme either on an HSU computer lab machine or from your own desktop or laptop computer. **There is no need to purchase any hardware or software for this class.**

Clickers

Clicker participation and scores are a part of the semester grade! There will be multiple-choice "clicker questions" during class.

Typically, you will receive:

- **1.5 points** for a correct answer,
- **0.75 points** for an incorrect answer, and
- **0 points** for no answer,
- but with a **maximum-possible** semester clicker-questions grade of **120**.
- (There may be some no-point questions from time-to-time as well -- such questions will be noted if/when they come up.)

Thus, you will be rewarded for regular attendance and participation. If you miss a class session, you miss that

day's clicker questions and **cannot** make them up (except for extraordinary circumstances). However, there will be a sufficient number of questions asked to allow for the possibility of extra credit (up to a **maximum-possible** clicker grade of **120**) or to make up for a day that you are out due to illness (although note that you are still responsible for finding out what you missed on such days).

Clicker questions will help you to see if you are starting to understand the concepts under discussion; sometimes they will provide review of concepts as well. Clicker questions are typically different from exam questions. They allow you to get some immediate feedback about course concepts, and whether you need to pay more attention to course discussions and readings.

Using another student's clicker, or having someone else use your clicker, is considered **cheating**, with the same consequences as turning in someone else's work as your own or permitting someone to copy your work.

Final Exam

The Final Exam for this course is scheduled for **Wednesday, December 12, from 10:20 AM – 12:10 PM.** Your end-of-semester travel plans **must** allow for taking this Final Exam at this date and time! The Final Exam will be comprehensive, covering all course material presented during the semester.

Grading

Your semester grade will be determined based on the following percentages:

Homework assignments:		35%	
Clicker questions:		15%	Sum of points earned from answering clicker questions, up to a **maximum** of 120 points
Exams:	**Exam #1:**	15%	Friday, September 28
	Exam #2:	15%	Friday, November 2
	Final Exam:	20%	Wednesday, December 12, 10:20 am - 12:10 pm

Your letter grade will then be determined based on the following:

Overall Percentage (based on the given weights)	**Letter Grade**
>= 93	A
>= 90 and < 93	A-
>= 87 and < 90	B+
>= 83 and < 87	B
>= 80 and < 83	B-
>= 77 and < 80	C+
>= 73 and < 77	C
>= 70 and < 73	C-
>= 67 and < 70	D+
>= 60 and < 67	D
< 60	F

Course Expectations:

There is a general rule of thumb for college-level courses:

To be successful in a course, you should plan to spend at least 2 hours outside of class for each 1 hour of course credit. That implies an estimate of **at least 6 hours a week spent outside of class for this 3-credit course**.

You should also note that:

- Assignment deadlines will **not** be extended because you waited too late to start or because you did not allocate enough time before the deadline to work on it; likewise, they will **not** be extended because of hardware or network failures. You need to keep backups of your files at all times, and need to plan your schedule to be able to work on on-campus computers as necessary.
- If you have not completed an assignment by the deadline, your best choice is to submit whatever you have managed to do by then, as partial credit is your friend, to carefully study the posted example solution as soon as it is available, and to ask me about anything there that is still unclear.

Inclusivity

Students in this class are encouraged to speak up and participate in-class. Each of us must show respect for each other because our class represents a diversity of beliefs, backgrounds, and experiences. I believe that this is what will enrich all of our experiences together. I recognize that our individual differences can deepen our understanding of one another and the world around us, rather than divide us. In this class, people of all ethnicities, genders and gender identities, religions, ages, sexual orientations, disabilities, socioeconomic backgrounds, regions, and nationalities are strongly encouraged to share their rich array of perspectives and experiences. If you feel your differences may in some way isolate you from our classroom community or if you have a specific need, please speak with me early in the semester so that we can work together to help you become an active and engaged member of our class and community. *(Adapted from HSU Canvas Accessible Syllabus Template, which was in turn adapted from CSU Chico and Winona State University)*

Initial Ground Rules for Course Discussions

(adapted from http://www.edchange.org/multicultural/activities/groundrules.html)

1. Listen actively -- respect others when they are talking.
2. Speak from your own perspective instead of generalizing ("I" instead of "they," "we," and "you").
3. Do not be afraid to respectfully challenge one another by asking questions, but refrain from personal attacks -- focus on ideas.
4. Participate to the fullest of your ability.
5. The goal is not to agree or to "win" -- it is to improve your critical thinking skills.
6. Be conscious of body language and nonverbal responses -- they can be as disrespectful as words.

A successful student in this class will:

- Attend every lecture, clicker/ResponseWare at the ready.
- Participate in class (discussing clicker answers with other students, asking questions, paying attention, taking notes).
- Complete reading assignments in a timely fashion.
- Practice and "play around" with course concepts.
- Take the opportunity to learn how to write your own thoughts; don't plagiarize. Be sure to give credit where credit is due and cite your sources.
- Ask **specific** questions -- in class, in office-hours, and in e-mail.
- Read through each homework assignment **as soon as** it is posted.

- Start working on each homework assignment as soon as it is posted, **early** in the week.
- E-mail the instructor with **specific** homework assignment-related questions starting soon after it is posted, **early** in the week, both to clarify what a question is asking for and when hitting roadblocks).
- Always submit SOMETHING for a homework assignment, even if it is not complete.
  - I believe in partial credit on homework assignments, believing that if you have at least started working on a problem, the posted example solution will be more helpful/understandable than if you have not.
- Compare their homework answers to posted example solutions when they become available.
- Study with others for exams, and practice explaining concepts to one another.
- Attempt every exam question, and carefully study over exams when they are returned.

Asking Questions/Getting Help

- Include **`CS 100`** in the `Subject:` line of any class-related e-mail that you send me. This will help your e-mail be more recognizable, and will make it less likely that I will accidentally overlook it.
  - ALSO include a descriptive subject along with the **`CS 100`** in that `Subject:` line -- this likewise increases the chances that I will notice and reply to your question more promptly. (In particular, do not just reply to a class e-mail message I have sent previously, and do not simply leave the `Subject:` line blank!)
  - You are expected to **sign** each e-mail you send me with **your name** -- sometimes the sender's identity is not obvious from one's e-mail address, especially for an off-campus e-mail address.
- I try to check my e-mail **about once a day on weekdays**, and **about once over each weekend**. This is another reason to start assignments early, so that you have time to receive a reply to any questions that might arise.
- You are encouraged to ask me questions in class and by e-mail. The most successful students are those who are not afraid to ask questions early and often (I will gently let you know if you are overdoing it), who do the assigned reading, who attend lectures regularly, who start homework assignments promptly after they are made available from the course web page, and who practice course concepts as needed.
- That said, I am expecting that you will ask **specific** questions – overly vague or broad questions are problematic. Similarly, if a homework question seems too vague, PLEASE feel free to ask for clarification from me.

Additional Coursework-Related Policies

- Each homework assignment must be submitted as specified on its handout to be accepted for credit. This may vary for different homework assignments.
- Each homework assignment will be clearly marked with one or more due dates (a single homework assignment could have multiple parts with multiple due dates).
  - **All work submitted must be your individual work – no copying of others' work!** You may work together in study groups, but all the homework assignments you submit **MUST** be your own work!
  - **In general, no homework assignments will be accepted late. If you wish to receive any credit for a homework assignment, then you must turn in whatever you have done, even if it is incomplete, by the deadline. Partial credit is usually preferable to no credit.** Note that "the computer/network/etc. going down" is no excuse --- if you leave a homework assignment for the last minute and there are technical problems, you still must turn in whatever you have by the deadline. Make frequent back-ups of your files!

(If there are unusual/extenuating circumstances such that you think there should be an exception to the above for you for a particular homework assignment, you must e-mail or see me as soon as possible explaining why. Note that you help your case if you can show that you have been working on the homework assignment throughout the week -- and not just at the last minute -- by having submitted parts of the homework throughout the week.)

  - You may submit **multiple** versions of a homework assignment before the deadline; I will grade the latest pre-deadline submission unless you inform me otherwise. This is to encourage you to turn homework assignment parts in early (since you will know that you can always turn in an improved version if further inspiration strikes). You also don't have to worry about forgetting to submit something that has already been submitted.

- It is nearly impossible to write unambiguous specifications. If you have questions about "what the question means", get them resolved early by **asking**.

Incompletes:

Incompletes are rarely given and only in the case of a true emergency. They certainly are not appropriate for students who find they have fallen behind on homework assignments, missed a test, or taken on too much academic, work, or family responsibilities. For these situations, dropping the course would be appropriate (**if** that is still possible according to the University policies for dropping courses).

Additional Course Policies

- You are expected to read this syllabus and be prepared to verify in a required Canvas activity that you have received it, have read it, and understand its contents.
- Exam dates are given in the course schedule below. Make-up exams are possible **ONLY** by special prior arrangement or because of a valid medical excuse.
- You should monitor your e-mail for course-related messages. The University provides a means for you to specify your preferred e-mail address, so if you wish to receive e-mail into an account other than the one HSU provides, change your preferred e-mail address in both Account Center and Canvas accordingly. Course-related messages from me will include **`CS 100`** in the **`Subject:`** line.
  - While students may elect to redirect messages sent to their official HSU email address to another address, those who redirect their email to another address do so at their own risk.
  - HSU Email Policy: https://policy.humboldt.edu/p16-01-email-policy
- You are expected to check the public course web page and the course Canvas site regularly -- course handouts, homework assignments, examples from lecture, and possibly more will be posted to the public course web page, and grades will be posted to the course Canvas site. You are expected to monitor your posted grades and let me know about any discrepancies.
- When reading assignments are given, you are expected to prepare (read and study) assigned readings **before** class and to participate in class discussions. Projected examples will be utilized frequently during discussion. You should understand that there may be material in the reading that is not be discussed in lecture, and material in the lectures that may not be found in the reading. You are responsible for both.
- Regular attendance at lectures is expected. If you should happen to miss a lecture, then you are responsible for finding out what you missed. "I wasn't there that time" is not an acceptable excuse. Lecture notes are not posted, although many of the projected examples will be made available on the public course web site. Clicker questions missed **cannot** be made up later.

Campus Policies and Procedures

The HSU Faculty Senate course syllabus guidelines allows instructors to simply provide a web link to HSU's policies, procedures, and resources as part of the course syllabus:

https://academicprograms.humboldt.edu/content/syllabus-addendum

ALL of the policies linked from the above are applicable to this class, and you are expected to be familiar with these policies!

The following are just a FEW highlights from this site:

Students with Disabilities:

Persons who wish to request disability-related accommodations should contact the **Student Disability Resource Center** in the university Learning Commons, Lower Level of the Library, **826-4678 (voice)** or **826-5392 (TDD)**. Disability accommodations must be pre-approved by the Student Disability Resource Center.

You can reach the Student Disability Resource Center's web site at:

http://disability.humboldt.edu/

Please note that some accommodations may take up to several weeks to arrange. If you are eligible for such accommodations, please contact me as soon as possible to discuss them.

Add/Drop Policy:

Students are responsible for knowing the University policy, procedures, and schedule for dropping or adding classes. You can find these on the web at:

https://registrar.humboldt.edu/registration/help#help

You can find the University policies for repeating classes at:

https://registrar.humboldt.edu/forms#policies

NOTE THAT THE ADD/DROP DEADLINE IS:

******* SEPTEMBER 3, 2018 *******

...WHICH IS THE DEADLINE TO ADD OR DROP CLASSES WITHOUT A SERIOUS AND COMPELLING REASON. And, please note: it is the **Registrar's Office** that determines what constitutes a "serious and compelling reason".

If you do drop the course, note that it is **your responsibility** to complete and submit the appropriate forms.

Attendance and disruptive behavior:

Students are responsible for knowing policy regarding attendance and disruptive behavior:

https://www2.humboldt.edu/studentrights/attendance-behavior

- **Late arrival to class:** Please attempt to come to class on time, with your headphones/earbuds/etc. put away and your cell phones/tablets/pads/gadgets/etc. turned off. If you must arrive late or leave early, please do so with the least possible distraction to other students. If your late/early habits become disruptive, you may be asked to leave the class permanently.
- **Class disruption:** University policy requires that instructors eliminate disruptions to the educational process. Distractions such as excess talking, ringing cell phones, working on assignments for other classes, inappropriate or distracting laptop/tablet/smartphone/gadget use, demonstrations of affection, packing of books early, loud music leaking from headphones, chronic late arrivals or early departures, excessive comings and goings or other behaviors that disrupt the class are not acceptable. Students indulging in such behaviors will first be warned before being required to leave the class permanently.

Emergency Evacuation

Please review the evacuation plan for the classroom (posted on the orange signs), and review the campus Emergency Preparedness web site at:

http://risksafety.humboldt.edu/sites/default/files/risksafety/hsu_eop-g_9.3.pdf

...for information on campus Emergency Procedures. During an emergency, information regarding campus conditions can be found at **826-INFO** or:

http://www.humboldt.edu/emergency

Tentative Course Schedule: (subject to change!)

Here is a brief outline of the course material, with a general schedule (subject to change):

- There will be **usually-weekly homework assignments**, typically due on **Friday** nights at **11:59 pm**.
- Chapter 1 – Introduction to Critical Thinking
- Chapter 2 – Recognizing Arguments
- Chapter 3 – Basic Logical Concepts
- **Exam #1 - Friday, September 28**
- Chapter 9 – A Little Categorical Logic
- Chapter 10 – A Little Propositional Logic
- An Introduction to Programming – Writing Functions using WeScheme
- **Exam #2 - Friday, November 2**
- Chapter 7 – Analyzing Arguments (Diagramming Arguments, and Missing Premises/Conclusions)
- Chapter 15 – Science and Pseudoscience
- Chapter 5 – Logical Fallacies I (Fallacies of Relevance)
- Chapter 6 – Logical Fallacies II (Fallacies of Insufficient Evidence)
- **Final Exam – Wednesday, December 12, 10:20 am - 12:10 pm**
  - Comprehensive, covers **all** semester course material