GNM 2248: Artificial Intelligence in Society
Fall 2020: Syllabus

Instructor: Dr. Vincent Cicirello   **Office:**   G-116
E-mail (course related): Use Blackboard "Course Messages" tool   **Phone (office):**   609-626-3526

Course Time/Location: Online Asynchronous, September 8, 2020 – December 11, 2020.

Office Hours: Zoom by appointment (contact me via Blackboard's Course Messages tool to arrange).
- The reduced room capacity to account for social distancing during the pandemic for my office is 1 (i.e., if I'm in there, nobody else is allowed to be). So I'm not allowed to meet with you there.
- **Scheduling Virtual Office Hours**: Since office hours will be virtual via Zoom, I'm not setting specific days/times. Send me a message via the Course Messages tool in Blackboard. For simple issues, we might be able to interact that way. But if you want to "meet" via Zoom include suggested days/times (multiple options preferably) in your message, and I will either pick one or I'll suggest alternatives if your requested days/times conflict with my schedule. Note: I won't meet on weekends or holidays, or after 4:30pm (I often have regular meetings for committees, etc at 4:30, and I don't work in the evening). My preference for meetings with students is between 10am and 2pm, but can be available outside that time window if necessary. Be aware that most Tuesdays this semester I have synchronous meetings for other Stockton courses, so Tuesday is likely harder than other days of the week to find a common time for a Zoom meeting with you.
- You can call my office phone. I will be there some days/times, and even if I'm not, I will get voicemail. Although if I don't answer when you call, you will likely get a quicker response if you send me a message in Blackboard.

Electronic Communications:
- **Discussion Forum:** There is a discussion forum within Blackboard. Later in the syllabus you will see the details of what is expected of you in this discussion forum (it is graded). In addition to discussing course topics there with your classmates, you can also use it if you have any general questions about course content, homework, exams, etc. Feel free to post those types of questions there in that forum. Anything you would potentially ask in a classroom in front of the entire class can be asked in that forum. There are only a couple important rules concerning the discussion forum. Rule 1: You are not allowed to post your answers to quiz questions or the questions themselves. Rule 2: You are not allowed to post your own personal grade details (this should be obvious since the entire class can read the contents of the discussion forum). Rule 3: You must be respectful with each other (this should also be obvious).
- **Course Messages:** If you do have something specific to you (e.g., your grades, or if you want to set up an office hours appointment), then use the "Course Messages" link in Blackboard on the left.
- **My Response Time:** If you send me a direct message in Course Messages, my goal is to respond no later than 11:59pm the next weekday. E.g., if you send me a message anytime on Monday, my goal is to respond by 11:59pm on Tuesday night, or if you send a message anytime on Friday, Saturday, or Sunday, my goal is to respond no later than 11:59pm on Monday night. Thanksgiving and the Friday following Thanksgiving are treated like weekend days. I'm also highly unlikely to respond on the two precepting days. See later in the syllabus for details on my response time in the Discussion Forum, which will vary based on how active the forum is with student posts.

Course Attributes:
- **W2 (Writing Across the Curriculum):** Must pass with C or better for W2 credit.
- **H (Historically Conscious)**.

Minors: This is an elective in the minors: (a) **Behavioral Neuroscience**, and (b) **Digital Literacy & Multimedia Design**.

Course Description: This course will provide a broad overview and introduction to the field of artificial intelligence (AI) focusing on the impacts it has made on society during the past 60+ years. The intended audience for this course is that of the general student. No mathematical background is required. The course will begin by providing a broad overview of what AI is, and what it is not, including a discussion of the notions of Strong and Weak AI. Strong AI hypothesizes that the human mind is nothing more than a computational device and thus that computers can in principle be programmed with the capability of thought (i.e., to truly reason and solve problems). Contrast this with Weak AI which does not focus on whether machines can be made to actually think, but rather whether machines can be made to act intelligently. We will read and discuss articles by the pioneering scientists and philosophers that explore these notions. Next, the course will focus on introducing the student to applications of AI that have been making their ways into our everyday lives. Attention will be placed on the ethical issues and the impacts AI technology will continue to make on society. The course will include a combination of lectures, class discussion of films (both fiction and non-fiction) and assigned readings (both non-fiction and fiction), as well as current day news articles.

Required Textbooks/Readings: There are no required textbooks. There will be required readings consisting of articles available electronically. You will be required to read articles by the dates indicated.

Required Films: Throughout the Blackboard page for the course, there are links to online videos that you must watch. Additionally, there are 2 movies you must watch by the end of Topic 3:
- "2001: A Space Odyssey," directed by Stanley Kubrick (1968).
- "A.I. Artificial Intelligence," directed by Steven Spielberg (2001).

Other Requirements: You need access to Blackboard, either through the Go Portal, or directly via blackboard.stockton.edu.

Prerequisites: None

Learning Objectives: A few of the learning objectives of this course include the following:
- Gaining factual knowledge pertaining to the field of Artificial Intelligence, such as some of the terminology of the field, approaches to problem solving that scientists have been taking in the field, and historical trends;
- Learning the fundamental principles and theories of the field of AI, including foundational elements from related fields such as philosophy of mind and cognitive science; and
- Learning to analyze and critically evaluate ideas and points of view pertaining to the field of AI.
- Developing skill in expressing myself orally or **in writing**.

Grading:

Online Discussion:	30%	
Essay:	30%	
Quizzes (7):	40%	

Grading Scale: The grade scale is as listed in the following table. Note my use of 2 decimal points in the scale. I don't round grades up. For example, 64.99 is a D+ and will not be rounded up to a C-.

A (at least 90.00 overall)	**A-** (at least 89.00 overall)	**B+** (at least 88.00 overall)
B (at least 78.00 overall)	**B-** (at least 77.00 overall)	**C+** (at least 76.00 overall)
C (at least 66.00 overall)	**C-** (at least 65.00 overall)	**D+** (at least 64.00 overall)
D (at least 54.00 overall)	**D-** (at least 53.00 overall)	**F** (less than 53.00 overall)

Online Discussions: On a regular basis throughout the semester, you are expected to discuss the course material with your classmates in an online discussion forum within Blackboard. If it's relevant to the course, even if not directly covered in the course, you may discuss it. For example, you can offer your classmates your perspective on a course topic, or perhaps contribute something of relevance you recently read about outside of the course. It is meant to be a discussion, so you are expected to read what other students have written in the discussion, and you are free to post your thoughts on their remarks. Your semester long participation in the online discussion will be graded, and counts for a significant portion of your overall course grade. The rubric that will be used for grading the discussion is found later in the syllabus. Note that you are expected to contribute on a regular basis throughout the semester in a substantive way. The online discussion board is also where you will post any questions you may have related to the course content. You can also feel free to respond to other student's questions if you see it before I do, and if you think you know the answer to what they ask. Such posts do count toward your discussion grade (both student post asking such a question, as well as a student responding to another).

My Response within the Online Discussion Forum: I regularly monitor the online discussion forum. I do not post a response to every student posting. Doing so would risk unintentionally biasing the direction of the discussion. I would rather the discussion go where the students take it (provided it is on topic, etc). The nature of my posts within the online discussion will likely be to clarify any course content, to answer any questions asked about the course content, or to make sure the discussion stays relevant. If a student post requires a response from me (e.g., a question was asked that requires clarifying course content, etc), then my response time will likely vary based on the overall volume of posts in the discussion forum (e.g., to discover that post that really needs a response, I must first read all posts). My goal is to respond to such discussion posts no later than 11:59pm the following weekday (much like I indicated earlier in the syllabus in the paragraph on response to private communications). However, if the discussion forum has particularly heavy volume, then it may take an extra weekday or two.

Writing: A very significant part of your course grade is based on an essay that you will write. Your grade on the essay is based on both the content as well as on the quality of the writing itself. If you need assistance in this area beyond what is covered during class time, please use my office hours. Also, Stockton has a Writing Center where you can gain additional writing related assistance (they even have Virtual Hours as well). I have provided links to a variety of writing resources focused specifically on essay writing within Blackboard. You are expected to read and utilize these resources.

Essay Assignment: You will write one essay due near the end of the semester. You have four essay topics to choose from. More details on the topics are available within Blackboard. Here is a brief listing of the four topics you can choose from:

1. Compare and contrast the fictional portrayals of AI from Kubrick's "2001: A Space Odyssey" and Spielberg's "A.I. Artificial Intelligence."
2. Research and report on applications of artificial intelligence within your major field of study.
3. Critique the Turing Test.
4. Pose your own vision for the future of artificial intelligence.

The details of all four essay alternatives will be available from the start of the course. **Your essay must be submitted electronically within Blackboard in Microsoft Word format (.doc or .docx).** Details on expectations of the essay and how you will be graded can be found in the appendix to this syllabus. The deadline is strict as it has been set as late in the semester as possible while still leaving me with sufficient time to read and grade the essays. Therefore, late essay assignments will be severely penalized as follows. Essays submitted within 24 hours of the deadline will receive 75% of the grade it would have received if it had been on time; essays submitted within 48 hours of the deadline will be reduced by 50%; and essays submitted within 72 hours of the deadline will be reduced to 25% of the grade it would have received if it had been on time. Under no circumstances will an essay be accepted if more than 72 hours late—such essays will receive a grade of 0. **Make sure you read the essay grading rubric so you understand how you will be graded.**

Feedback on Essay Drafts (OPTIONAL, but RECOMMENDED): I am happy to provide feedback on drafts of the essay assignment. Here is how to get such feedback, along with some constraints:

- To get feedback on a draft, submit it on the assignment submission page no later than October 31, 11:59pm. Yes, I really mean **submit** it.
- I will read and grade all essays submitted by that date and time. How soon after October 31 for you to access the grade details with comments depends upon how many of you take this option.
- You can then revise and resubmit the essay. Or if you are happy with the grade on the draft, then you can declare yourself done with the assignment early.
- You can go through this cycle as many times as you want (as long as revisions are also submitted by Oct 31, 11:59pm).
- To go through this cycle multiple times though, the first submission will need to be sufficiently prior to Oct 31 that I have time to read, grade, and return to you with enough time for you to revise again prior to that date. I can't give a specific date if you want to go through multiple rounds of revisions since I have no way of knowing how many of you will take this option. The more of you that use this option the longer it will take me to grade your drafts.
- Your grade for the assignment is your grade on the last version submitted up to the assignment deadline. There's no guarantee that it will be the highest grade, but presumably you will use the grading comments to improve your essay.

Quizzes: The quizzes are conducted electronically. You will have limited time to complete them. You will have 40 minutes to complete each quiz. Each quiz will have 16 questions. You can take a quiz up to 2 times. If you take a quiz twice, your grade is the higher of the two grades. The questions are randomly selected, so you will not likely get the same questions on retakes. Although you will see your grade for a quiz upon completing it, you will not be given the correct answers to the questions until after the due-date for completion—thus, if you retake a quiz the system will not have shown you which questions you answered incorrectly the first time. You must take each of the 7 quizzes at least once. Quiz due dates are strict and occur approximately every 2 weeks (see Blackboard for specific dates), **due by 12noon**. Each quiz corresponds to one of the general course topics, and covers the required readings for that topic and any other material covered in the lectures. If you do not take a quiz by its designated due-date, then your grade on that quiz is a 0.

Quiz Grade Drop Policy: The lowest non-zero quiz grade will be dropped. **No 0 grades will be dropped**. If you skip a quiz (or get all questions on a quiz incorrect), then the 0 received for that quiz will be counted toward your quiz average. A student who takes all 7 quizzes at least once will receive the average of their 6 best quizzes as their overall quiz average.

Due Dates and Late Policy: Quiz dates are strict. If you miss a quiz, your score on that quiz is 0. If you miss a quiz and have a legitimate illness, please provide a note from a doctor explicitly indicating the dates that you are unable to participate in course activities. The best way to provide such documentation is to bring it to the Stockton Wellness Center, who will contact all of the instructors of your courses providing them with the relevant medical excusal dates. Valid medical excuses are the only ones that will be considered in the event of a missed quiz. See the section on the Essay Assignment above for details on late policy for the essay.

Academic Honesty: Please familiarize yourself with Stockton's policy on academic honesty. The penalty for each violation is: (a) a grade of 0 on the quiz or assignment of your violation, **and** (b) a 10 point reduction of your overall course grade. Examples of violations include but are not limited to: plagiarism in essays, any other form of presenting work of another as your own, any form of cheating on quizzes, helping someone cheat on a quiz, asking someone to help you cheat even if they refuse, etc.

Topics and Tentative Schedule: Strongly recommend working ahead whenever you are able to do so.

Complete Topic's Required Readings, Materials, and Quiz by 12noon on:	Topic
September 18	Intro to the Course; The Turing Test
October 2	History of AI: From early days to present
October 16	AI in Fiction
October 30	Common Sense Reasoning
November 13	Collective Problem Solving
November 30	Evolving Intelligence; Creativity
December 11	Knowledge-Based Systems

Quiz Deadlines are all at 12 noon (see table above for specific dates).

Essay Deadline: December 11, 2020 by 11:59pm, electronically within Blackboard.

Class Discussion: Ends at 11:59pm on Friday, December 11, 2020.

Essay Grading Rubric

Expectations:
- Your essay is expected to contain relevant, original, accurate content, and to be written well. You will be graded within the context of the course topic as well as the quality of your written essay.
- **Formatting Requirements (read carefully):** Your essay should be at least 6 pages in length (1 inch margins on top, bottom, left and right, 12pt font size, Times New Roman font, line spacing no larger than 1.5 spacing—NOT double-spaced). Each essay should be no longer than 8 pages (will be penalized if over length). Indent first line of each paragraph. Do not skip any lines between paragraphs and do not add any extra spacing between paragraphs. You should include your name on the first line of the essay, and optionally a title for your essay (don't skip lines between name and title). You may skip one line before the first paragraph of the essay. [**Any deceptive formatting tricks, such as but not limited to 14pt font for periods, will result in 0 points in the formatting and length rows of the grade rubric.**]
- **Citation Style:** Different academic disciplines prefer different citation styles, so as this is an interdisciplinary course, I do not want to require you to use a specific citation style. You may use any commonly accepted citation style (e.g., APA, MLA, IEEE, ACM, etc), such as whatever is preferred by your academic discipline. However, you must use it correctly and consistently (e.g., no mixing styles). You do not need to tell me what citation style you are using. I'll recognize the common ones, and if I really can't figure out what style you are using, I'll ask you. Your citation list must be formatted correctly for your chosen style, and **does not count toward the length requirements**. The actual content of your essay must meet the minimum length requirement not counting your reference list (see formatting section above), and you won't be penalized if the only thing that goes beyond the maximum length is your reference list. There are no explicit minimum or maximum number of references required.
- Your essay must be submitted electronically within Blackboard as a Microsoft Word document (either .doc or .docx). **No other file format will be accepted.**

	12.5 points	9.375 points	6.25 points	3.125 point	0 points
Relevance to chosen essay topic.	Entire essay is relevant to the chosen essay topic.	Most of the essay is relevant to the chosen essay topic.	Essay contains some relevant material.	Essay is significantly off the chosen topic.	Essay is entirely off topic.
Course relevance.	Entire essay is relevant to the course.	Most of the essay is relevant to the course.	Essay contains some material relevant to the course.	Essay is significantly off the topic of the course.	Essay is entirely off the topic of the course.
Accuracy	All supporting points made in the essay are accurate.	Most supporting information in the paper is accurate.	Multiple inaccuracies exist, but at least one of the main points is accurate.	None of the main points of the essay are supported by accurate information.	Essay is entirely inaccurate.
Organization	Essay is well-organized.	Essay is mostly well-organized.	Multiple places where flow can be improved.	Weak organization.	Entirely unorganized.
Grammar, mechanics, and spelling.	The essay contains no grammar, mechanics, or spelling errors.	The essay contains a few grammar, mechanics, or spelling errors, but they do not interfere with understanding.	The essay contains several errors in grammar, mechanics, or spelling that do not interfere with understanding; or a few such errors that interfere with understanding.	The essay contains several errors in grammar, mechanics, or spelling that interfere with understanding.	The essay contains numerous errors in grammar, mechanics, or spelling that interfere with understanding.
Citations	Citation list is correctly formatted, in-text citations are done correctly, you included citations wherever necessary, you do not have any unnecessary citations, and you consistently used your chosen citation style.	A couple minor errors in citation formatting, or you have a small number of unnecessary citations, or you are missing no more than 1 necessary citation.	Several unnecessary citations, or you are missing no more than 2 necessary citations, or moderate errors in citation style usage.	Included at least 1 necessary citation, but are otherwise missing more than 2. Or more severe citation formatting issues, but formatting at least partially correct.	Citation formatting entirely incorrect, or are missing all necessary citations.
Formatting	Your essay adheres to all formatting requirements and is submitted as a Microsoft Word document.	Your essay violates no more than 1 formatting requirement, and is submitted as a Microsoft Word document.	Your essay violates no more than 2 formatting requirements, and is submitted as a Microsoft Word document.	Your essay violates no more than 3 formatting requirements, and is submitted as a Microsoft Word document.	Your essay violates more than 3 formatting requirements, or is not a Microsoft Word document, **or contains at least one instance of deceptive formatting**.
Length	Your essay is correctly formatted and is at least 6 pages in length and no more than 8 pages in length.	Your essay is correctly formatted but more than 8 pages in length; or your essay is correctly formatted and at least 5 pages in length; or your essay is not correctly formatted, but when converted to the required formatting it is of the required length.	Your essay is correctly formatted and at least 4 pages in length; or your essay is not correctly formatted, but when converted to the required formatting it is at least 5 pages in length.	Your essay is correctly formatted and at least 3 pages in length; or your essay is not correctly formatted, but when converted to the required formatting it is at least 4 pages in length.	Your essay is less than 3 page in length, but in the correct format; or less than 4 pages in length when converted to the correct format; **or contains at least one instance of deceptive formatting**.

Online Discussion Grading Rubric

Expectations: You are expected to contribute to the online class discussion on a regular basis throughout the semester. In the discussion, you can contribute your own perspective on the course topics, debate course related topics with your classmates, ask clarifying questions about course topics, answer other students' questions, comment on and offer alternative views to what is conveyed in other discussion posts. You are **expected to contribute at least 1 new post in each week of the semester**, where a week ends at 11:59pm on Friday. And you are **expected to contribute a minimum of 20 total posts** throughout the semester (i.e., if you post only once per week, you will end up short in total). For the purpose of counting weeks, Tuesday, September 8 through Friday, September 18 will count collectively as the first week. The last week of the discussion will end Friday, December 11, 11:59pm.

Grading: I am not going to grade each individual post. Rather, your grade on the discussion as a whole is based on: (a) regularly contributing throughout the semester, (b) substantive contributions, (c) relevant contributions, and (d) engaging with your fellow classmates perspectives. Your grade on the online discussion will be determined at the end of the semester. The discussion forum will be deactivated on Friday, December 11, 11:59pm. Your discussion grade will be determined based on the following rubric. For the purpose of counting weeks, Tuesday, September 8 through Friday, September 18, 11:59pm will count collectively as the first week. Thereafter, weeks end on Fridays at 11:59pm. The last such week of the discussion ends at 11:59pm on Friday, December 11.

	20 points	**15 points**	**10 points**	**5 points**	**0 points**
Regular Contributions	At least 1 post during each week (week ending each Friday at 11:59pm).	At least 1 post in all but 2 weeks.	At least 1 post in all but 4 weeks.	At least 1 post in all but 6 weeks.	More than 6 weeks where no posts were made.
Total Number of Contributions	At least 20 total posts throughout the semester.	At least 15 total posts throughout the semester.	At least 10 total posts throughout the semester.	At least 5 total posts throughout the semester.	Less than 5 total posts during semester.
Discussion Engagement	It is evident in your posts that you often read and reflected upon the posts of your fellow classmates.	It is evident in your posts that you regularly read and reflected upon the posts of your fellow classmates.	It is evident in your posts that you occasionally read and reflected upon the posts of your fellow classmates.	It is evident in your posts that you read and reflected upon the posts of your fellow classmates at least once.	You do not appear to have read and reflected upon the posts of your classmates.
Relevance	The content of your posts, as a whole, are entirely relevant to the course.	The content of your posts, as a whole, are mostly relevant to the course.	The content of your posts, as a whole, are inconsistent in relevance to the course, but do contain relevant content.	Your posts, as a whole, contain very little content relevant to the course.	Your posts, as a whole, contain no content relevant to the course.
Substantive Contributions	Overall, you made a substantive contribution to the class wide discussion.	Your posts as a whole are mostly substantive.	Inconsistent in substantive content.	Your posts as a whole contain very little substantive content.	Your posts as a whole contain no substantive content.