# g. Robotics

## Optional Texts/Readings (no required text)

This class does not require a mandatory textbook. Google is your friend! Always refer to the specification documentation for the libraries you are using.

# Optional textbook (I will not be teaching by it)

Artificial Intelligence: A modern approach (3rd or 4th edition) Author: Stuart Russel and Peter Nerving ISBN: 9780136042594

Other technology requirements / equipment / material

- Assignments/Problem Sets (40%)
- Quizzes (20%)
- Midterm exam (20%)
- Final Examination (20%)

### Incomplete work:

Points will be deducted for incomplete question responses and solutions that are partially functional. Consult individual assignment for details of point allocation for each problem.

## Extra credit:

Extra credit options might be available in this class. All and any possible extra credit options will be announced in class and posted in canvas system if and when they become available.

## Homework assignment due date:

Submission is allowed till 11:59 pm on the due date.

#### Late assignments:

No late homework will be accepted.

#### Makeup Exams:

You must submit only your own work on exams. Makeup exams will only be given in cases of illness (documented by a doctor) or in cases of documentable, extreme emergency.

#### Grading scale:

97.0 - 100	A+	72.0 - 76.99	С	
93.0 - 96.99	А	70.0 - 71.99	C-	
90.0 - 92.99	A-	67.0 - 69.99	D+	
87.0 - 89.99	B+	62.0 - 66.99	D	
82.0 - 86.99	В	60.0 - 61.99	D-	
80.0 - 81.99	В-	<60.0	F	
77.0 - 79.99	C+			

Note that "All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades." See <u>University Policy F13-1</u> at <u>http://www.sjsu.edu/senate/docs/F13-1.pdf</u> for more details.

## Classroom Protocol (aka how to succeed in this class)

1. Attend all sessions. From past semesters, data shows that there is a positive correlation between attendance and your overall grade.

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- 2. Come to class on time. Students entering the classroom late disrupt the lecture and / or the students already in class who may be engaged in lab or discussion.
- 3. A laptop/tablet is required in this class. Bring your device to lectures in order to be able to participate in in-class quizzes and activities.
- 4. If you miss a lecture you are still responsible for any material discussed or assignments given. A large portion of each class will be used for hands-on lab / discussion. All students are expected to participate in class activities. Students who are often absent will find themselves at a disadvantage during the tests.
- 5. No audio / video recording or photography in the classroom without prior permission of instructor. Instructor may provide review videos and/or flipped classroom.
- 6. No personal discussion or cell phone activity during class time. Please set the cell phone on silent/ vibrate mode.
- 7. Email to be sent to the instructor's SJSU email ID (yulia.newton@gmail.edu or yulia.newton@sjsu.edu) only. Please DO NOT use canvas for emailing. I check email periodically during the day but much less during weekends. Please do not expect quick turnaround time during weekends.
- 8. Start on your homework early and stay on top of them. Some assignments take way more time than you expect. Don't let your initial impression fool you.
- 9. Start forming study/project groups NOW. It makes it easier to work with the group for the final project. Your project partners are highly important to your success so choose them wisely.
- 10. Be prepared to learn A LOT. Some of this may require you to self-study certain topics. I will guide you through this journey but the onus of getting the best of this class lies on you.
- 11. If you are stuck or don't understand something, ASK. Come to office hours. If office hours don't work for you please email, ask on piazza, ask me right after class. I cannot help you if you don't ask for it.

Have fun lear0 12 0 0.pgvæ

Course Schedule Tentative schedule. Subject to change with notice. Quizzes are not yet included into the schedule below. There will be roughly 1 quiz per week.

1	1/27/2021	Class introduction, logistics, misc.	
2	2/01/2021	High level overview of artificial intelligence, terminology and main concepts	
2	2/03/2021	High level overview of artificial intelligence, terminology and main concepts	
3	2/08/2021	High level overview of artificial intelligence, terminology and main concepts	
3	2/10/2021	High level overview of artificial intelligence, terminology and main concepts	Homework 1 assigned
4	2/15/2021	Introduction to PCA, k-means clustering, and KNN classification	Homework 2 assigned
4	2/17/2021	Regression models	Homework 1 due
5	2/22/2021	Regression models	Homework 2 due
5	2/24/2021	Regression models	Homework 3 assigned
6	3/01/2021	Support vector machines	Homework 4 assigned
6	3/03/2021	Support vector machines	Homework 3 due
7	3/08/2021		