Course

<u>Progress</u>

<u>Dates</u>

**Discussion** 

## Your progress

### **Course completion**

This represents how much of the course content you have completed. Note that some content may not yet be released.



#### **Related links**

Dates

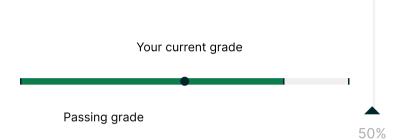
A schedule view of your course due dates and upcoming assignments.

• Course Outline

A birds-eye view of your course content.

# **Grades**

This represents your weighted grade against the grade needed to pass this course.



✓ You're currently passing this course with a grade of B (70-

**85%)** (i)



Assignment type	Weight	Grade	Weighted grade
Final Exam	20%	0%	0%
Engagement	10%	98%	10%
Comprehension Quiz	10%	100%	10%
Problem Sets <sup>1</sup>	30%	100%	30%
Programming Assignments <sup>2</sup>	30%	100%	30%
Your current weighted grade summa	ry		80%
ne lowest 2 Problem Sets scores are dropp ne lowest 2 Programming Assignments sco	ed.		80%
ne lowest 2 Problem Sets scores are dropp ne lowest 2 Programming Assignments sco etailed grades	ed. ores are dropped.		80%
ne lowest 2 Problem Sets scores are dropp the lowest 2 Programming Assignments sco etailed grades Introduction and Course Informatio  How This Course is Run	ned. ores are dropped. n		
Your current weighted grade summa  the lowest 2 Problem Sets scores are dropp the lowest 2 Programming Assignments sco  etailed grades  Introduction and Course Information  How This Course is Run  Problem Scores: 1/1 1/1 1/1	ned. ores are dropped. n		Score

80%

Week 1: Prediction Problems	Score
▲ 1.1 Introduction to Machine Learning	1/1
Problem Scores: 1/1	,
4. 1.2 Negroot Neighbor Classification	1/1
▲ 1.2 Nearest Neighbor Classification  Problem Scores: 1/1	1/1
▲ 1.3 Improving the Performance of Nearest Neighbor	1/1
Problem Scores: 1/1	
▲ 1.4 Useful Distance Functions for Machine Learning	1/1
Problem Scores: 1/1	
▲ 1.5 A Host of Prediction Problems	1/1
Problem Scores: 1/1	
▲ Problem Set 1	43/43
Problem Scores: 1/1 1/1 1/1 1/1 1/1 3/3 2/2 5/5 3/3	1/1 2/2 2/2
1/1 0/0 0/0 3/3 3/3 3/3 1/1 3/3 1/1 4/4	
▲ Programming Assignment 1	5/5
Problem Scores: 2/2 1/1 1/1 1/1	
▲ Comprehension Quiz 1	12/12
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	1/1
4	<b>&gt;</b>
Week 2: Generative Modeling I	Score
<u>◆ 2.1 The Generative Approach to Classification</u>	1/1
Problem Scores: 1/1	,, .
4. 2.2 Brobability Poviny It Brobability Change Fyonts and Conditioning	
2.2 Probability Review I: Probability Spaces, Events, and Conditioning Problem Scores: 1/1	g 1/1
▲ 2.3 Generative Modeling in One Dimension	1/1
Problem Scores: 1/1	
<ul> <li>2.4 Probability Review II: Random Variables, Expectation, and Variance</li> </ul>	<u>ce</u> 1/1
Problem Scores: 1/1	
▲ 2.5 Probability Review III: Measuring Dependence	1/1
Problem Scores: 1/1	
▲ 2.6 Two Dimensional Generative Modeling with the Bivariate Gaussia	<u>n</u> 1/1
Problem Scores: 1/1	
▲ Problem Set 2	45/45
Problem Scores: 1/1 1/1 3/3 3/3 1/1 2/2 1/1 2/2 2/2	•
2/2 1/1 4/4 2/2 2/2 2/2 3/3	
<u> </u>	18/18
Problem Scores: 3/3 1/1 1/1 1/1 0/0 3/3 3/3 1/1 1/1 1/1	3/3
<u> </u>	26/26
	4/4 1/1 1/1
1/1 1/1 1/1 1/1	
	<b>&gt;</b>

Week 3: Generative Modeling II	Score
▲ 3.1 Linear Algebra I: Basic Notation and Dot Products	1/1
Problem Scores: 1/1	
▲ 3.2 Linear Algebra II: Matrix Products and Linear Functions	1/1
Problem Scores: 1/1	
▲ 3.3 Linear Algebra III: Square Matrices as Quadratic Functions	1/1
Problem Scores: 1/1	
▲ 3.4 The Multivariate Gaussian	1/1
Problem Scores: 1/1	
▲ 3.5 Gaussian Generative Models	1/1
Problem Scores: 1/1	
▲ 3.6 More Generative Modeling	1/1
Problem Scores: 1/1	
▲ Problem Set 3	66/66
Problem Scores: 1/1 3/3 2/2 2/2 1/1 1/1 1/1 1/1 1/1 3/3 3/3 4/4 3/3	
1/1 5/5 1/1 2/2 4/4 7/7 1/1 2/2 2/2 1/1 1/1 1/1 1/1 1/1 3/3 2/2 5/5	
▲ <u>Programming Assignment 3</u>	8/8
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1	
▲ Comprehension Quiz 3	27/27
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	
4	<b>&gt;</b>

eek 4: Linear Regression and Probability Estimation	Score
4.1 An Introduction to Linear Regression	1/1
Problem Scores: 1/1	
4.2 Linear Regression	1/1
Problem Scores: 1/1	., .
4.3 Regularized Linear Regression  Problem Scores: 1/1	1/1
Problem Scores. 1/1	
4.4 Linear Models for Conditional Probability Estimation	1/1
Problem Scores: 1/1	
4.5 Logistic Regression	1/1
Problem Scores: 1/1	
▲ 4.6 Logistic Regression in Use	1/1
Problem Scores: 1/1	
Problem Set 4	11/11
Problem Set 4  Problem Scores: 6/6 4/4 3/3 5/5 1/1 1/1 4/4 1/1 2/2 4/4 1/1 1/1 3/3	41/41
1/1 1/1 1/1 1/1	
Programming Assignment 4	6/6
Problem Scores: 1/1 2/2 1/1 1/1	-
<u>Comprehension Quiz 4</u>	16/16
Comprehension Quiz 4	10/10
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	
1/1 1/1	
7/1 1/1  7/eek 5: Optimization and Geometry  5.1 Unconstrained Optimization I	Score
1/1 1/1  /eek 5: Optimization and Geometry	Score
/eek 5: Optimization and Geometry  5.1 Unconstrained Optimization I	Score
//eek 5: Optimization and Geometry  5.1 Unconstrained Optimization I  Problem Scores: 1/1	Score
7/1 1/1  7/2	Score
//eek 5: Optimization and Geometry  5.1 Unconstrained Optimization I  Problem Scores: 1/1  5.2 Unconstrained Optimization II  Problem Scores: 1/1	<b>Score</b> 1/1
7/1 1/1  Feek 5: Optimization and Geometry  5.1 Unconstrained Optimization I  Problem Scores: 1/1  5.2 Unconstrained Optimization II  Problem Scores: 1/1  5.3 Unconstrained Optimization III  Problem Scores: 1/1	Score 1/1 1/1 1/1
/eek 5: Optimization and Geometry  5.1 Unconstrained Optimization I Problem Scores: 1/1  5.2 Unconstrained Optimization II Problem Scores: 1/1  5.3 Unconstrained Optimization III	Score 1/1 1/1 1/1
// 1/1  // Index of the first o	Score 1/1 1/1 1/1
## Seek 5: Optimization and Geometry    5.1 Unconstrained Optimization     Problem Scores: 1/1     5.2 Unconstrained Optimization      Problem Scores: 1/1     5.3 Unconstrained Optimization      Problem Scores: 1/1     5.4 Convexity     Problem Scores: 1/1     5.5 Linear algebra   IV: Positive Semidefinite Matrices	Score 1/1 1/1 1/1
// 1/1  // Index 5: Optimization and Geometry  5.1 Unconstrained Optimization I  Problem Scores: 1/1  5.2 Unconstrained Optimization II  Problem Scores: 1/1  5.3 Unconstrained Optimization III  Problem Scores: 1/1  5.4 Convexity I  Problem Scores: 1/1	Score 1/1 1/1 1/1
// 1/1 // Index 5: Optimization and Geometry  5.1 Unconstrained Optimization I Problem Scores: 1/1  5.2 Unconstrained Optimization II Problem Scores: 1/1  5.3 Unconstrained Optimization III Problem Scores: 1/1  5.4 Convexity I Problem Scores: 1/1  5.5 Linear algebra IV: Positive Semidefinite Matrices Problem Scores: 1/1	Score 1/1 1/1 1/1
/eek 5: Optimization and Geometry  5.1 Unconstrained Optimization I Problem Scores: 1/1  5.2 Unconstrained Optimization II Problem Scores: 1/1  5.3 Unconstrained Optimization III Problem Scores: 1/1  5.4 Convexity I Problem Scores: 1/1  5.5 Linear algebra IV: Positive Semidefinite Matrices Problem Scores: 1/1	Score 1/1 1/1 1/1 1/1
/eek 5: Optimization and Geometry  5.1 Unconstrained Optimization I Problem Scores: 1/1  5.2 Unconstrained Optimization II Problem Scores: 1/1  5.3 Unconstrained Optimization III Problem Scores: 1/1  5.4 Convexity I Problem Scores: 1/1  5.5 Linear algebra IV: Positive Semidefinite Matrices Problem Scores: 1/1  5.6 Convexity II	Score 1/1 1/1 1/1 1/1
// 1/1 // Index Scores: 1/1 // S.2 Unconstrained Optimization II // Problem Scores: 1/1 // S.3 Unconstrained Optimization III // Problem Scores: 1/1 // S.4 Convexity I // Problem Scores: 1/1 // S.5 Linear algebra IV: Positive Semidefinite Matrices // Problem Scores: 1/1 // S.6 Convexity II // Problem Scores: 1/1	Score 1/1 1/1 1/1 1/1 1/1 1/1
### June   1/1   1/1  #### June   1/1   1/1  ##### June   1/1   1/1  ##### June   1/1   1/1  ##### June   1/1   1/1  ##### June   1/1   1/1  ##################################	Score 1/1 1/1 1/1 1/1 1/1 28/28
feek 5: Optimization and Geometry  5.1 Unconstrained Optimization II Problem Scores: 1/1  5.2 Unconstrained Optimization III Problem Scores: 1/1  5.3 Unconstrained Optimization IIII Problem Scores: 1/1  5.4 Convexity I Problem Scores: 1/1  5.5 Linear algebra IV: Positive Semidefinite Matrices Problem Scores: 1/1  5.6 Convexity II Problem Scores: 1/1  Problem Scores: 1/1  Problem Scores: 1/1	Score 1/1 1/1 1/1 1/1 1/1 1/1
// I/I I/I  // Journal of Scores: 1/1    S.2 Unconstrained Optimization   Problem Scores: 1/1    S.3 Unconstrained Optimization   Problem Scores: 1/1    S.4 Convexity   Problem Scores: 1/1    S.5 Linear algebra   IV: Positive Semidefinite Matrices   Problem Scores: 1/1    S.6 Convexity   Problem Scores: 1/1    Problem Scores: 1/1   Problem Scores: 1/	Score 1/1 1/1 1/1 1/1 1/1 28/28 3/3
// In the first section of the	Score 1/1 1/1 1/1 1/1 1/1 28/28 3/3 19/19

**Week 4: Linear Regression and Probability Estimation** 

Score

Week 6: Support Vector Machines and Kernels	Score
▲ 6.1 A Simple Linear Classifier	1/1
Problem Scores: 1/1	
▲ 6.2 Support Vector Machines I  Problem Scores: 1/1	1/1
▲ 6.3 Support Vector Machines II  Problem Scores: 1/1	1/1
▲ 6.4 Duality  Problem Scores: 1/1	1/1
▲ 6.5 Multiclass Linear Prediction  Problem Scores: 1/1	1/1
► <u>Problem Set 6</u> Problem Scores: 3/3 1/1 1/1 1/1 1/1 5/5 4/4 4/4 4/4 1/1 1/1 1/1 1/1 4/4 1/1 2/2	35/35
► Programming Assignment 6  Problem Scores: 1/1 1/1 0/0 1/1 1/1	4/4
<u>Comprehension Quiz 6</u> Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	15/15
4	<b>&gt;</b>

Veek 7: Combining S	imple (	Classifi	ers										Score
▲ 7.1 Kernels I: Basis	<u>Expan</u>	<u>ısion</u>											1/1
Problem Scores:	1/1												
<u> ↑ 7.2 Kernels II: The</u>	Kernel	<u>Trick</u>											1/1
Problem Scores:	1/1												
70 Kamada III. Kan													4.10
▲ 7.3 Kernels III: Ker		<u>VI</u>											1/
Problem Scores:	1/1												
▲ 7.4 Kernels IV: The	e Kerne	el Functi	<u>ion</u>										1/
Problem Scores:	1/1												
75.0		161											4.4
▲ 7.5 Combining Sir		assifiers	<u> </u>										1/
Problem Scores:	1/1												
▲ 7.6 Decision Trees	<u> </u>												1/
Problem Scores:	1/1												
<u> 7.7 Boosting</u>													1/
Problem Scores:	1/1												17
Problem Scores.	1/ 1												
▲ 7.8 Random Fores	ts.												1/
Problem Scores:	1/1												
<u> </u>													28/28
Problem Scores:	1/1 1	/1 2/2	1/1	1/1	3/3	1/1	1/1	1/1	3/3	1/1	1/1	1/1	20,20
		/1 1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	,,	., .	., .	
<u>Programming Ass</u>	ianmer	nt 7											4/5
Problem Scores:			0/1	1/1									7/5
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▲ Comprehension G	<u>uiz 7</u>												14/14
Problem Scores:	1/1 1	/1 1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1 1/1	

	Score
<u>▲ 8.1 Representation Learning</u>	1/1
Problem Scores: 1/1	·
	4.44
8.2 Clustering with the k-Means Algorithm I  Problem Scores: 1/1	1/1
Troblem Scores. 1/1	
▲ 8.3 Clustering with the k-Means Algorithm II	1/1
Problem Scores: 1/1	
▲ 8.4 Clustering with Mixtures of Gaussians	1/1
Problem Scores: 1/1	
▲ 8.5 Hierarchical Clustering	1/1
Problem Scores: 1/1	1/ 1
▲ Problem Set 8	20/20
Problem Scores: 4/4 4/4 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1	
► Programming Assignment 8	4/4
Problem Scores: 1/1 1/1 1/1	
▲ Comprehension Quiz 8	9/9
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1	
	<b>&gt;</b>
Week 9: Representation Learning II	Score
▲ 9.1 Linear Projections	1/1
Problem Scores: 1/1	
• 0.2 Principal Component Analysis I: One Dimensional Projection	1/1
◆ 9.2 Principal Component Analysis I: One Dimensional Projection  Problem Scores: 1/1	1/1
Troslom ecorosi. Tyr	
▲ 9.3 Principal Component Analysis II: The Top k Directions	1/1
▲ <u>9.3 Principal Component Analysis II: The Top k Directions</u> Problem Scores: 1/1	1/1
	1/1
Problem Scores: 1/1	
Problem Scores: 1/1    9.4 Case Study: Personality Assessment  Problem Scores: 1/1	1/1
Problem Scores: 1/1  • 9.4 Case Study: Personality Assessment	
Problem Scores: 1/1   ■ 9.4 Case Study: Personality Assessment  Problem Scores: 1/1  ■ 9.5 Linear Algebra V: Eigenvalues and Eigenvectors  Problem Scores: 1/1	1/1
Problem Scores: 1/1   ■ 9.4 Case Study: Personality Assessment  Problem Scores: 1/1  ■ 9.5 Linear Algebra V: Eigenvalues and Eigenvectors  Problem Scores: 1/1  ■ 9.6 Linear Algebra VI: Spectral Decomposition	1/1
Problem Scores: 1/1   ■ 9.4 Case Study: Personality Assessment  Problem Scores: 1/1  ■ 9.5 Linear Algebra V: Eigenvalues and Eigenvectors  Problem Scores: 1/1	1/1
Problem Scores: 1/1   ■ 9.4 Case Study: Personality Assessment  Problem Scores: 1/1  ■ 9.5 Linear Algebra V: Eigenvalues and Eigenvectors  Problem Scores: 1/1  ■ 9.6 Linear Algebra VI: Spectral Decomposition	1/1
Problem Scores: 1/1         9.4 Case Study: Personality Assessment         Problem Scores: 1/1         9.5 Linear Algebra V: Eigenvalues and Eigenvectors         Problem Scores: 1/1         9.6 Linear Algebra VI: Spectral Decomposition         Problem Scores: 1/1         Problem Scores: 1/1         Problem Scores: 1/1         Problem Scores: 1/1         1/1         1/1         1/1         1/1         1/2 <td>1/1 1/1</td>	1/1 1/1
Problem Scores: 1/1   ■ 9.4 Case Study: Personality Assessment Problem Scores: 1/1  ■ 9.5 Linear Algebra V: Eigenvalues and Eigenvectors Problem Scores: 1/1  ■ 9.6 Linear Algebra VI: Spectral Decomposition Problem Scores: 1/1  ■ Problem Set 9	1/1 1/1
Problem Scores:       1/1            9.4 Case Study: Personality Assessment         Problem Scores:       1/1         9.5 Linear Algebra V: Eigenvalues and Eigenvectors         Problem Scores:       1/1         Problem Scores:       1/1         Problem Scores:       1/1         Problem Scores:       1/1	1/1 1/1
Problem Scores: 1/1            9.4 Case Study: Personality Assessment         Problem Scores: 1/1          Problem Scores: 1/1            9.5 Linear Algebra VV: Eigenvalues and Eigenvectors         Problem Scores: 1/1          Problem Scores: 1/1         Problem Scores: 1/1         Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 3/4 1/1 8/8 1/1 2/2 2/2 6/6         Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 3/4 1/1 8/8 1/1 2/2 2/2 6/6	1/1 1/1 1/1 39/40
Problem Scores: 1/1         9.4 Case Study: Personality Assessment	1/1 1/1 1/1 39/40
Problem Scores: 1/1         9.4 Case Study: Personality Assessment         Problem Scores: 1/1            9.5 Linear Algebra V: Eigenvalues and Eigenvectors         Problem Scores: 1/1          Problem Scores: 1/1         Problem Scores: 1/1         Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 3/4 1/1 8/8 1/1 2/2 2/2 6/6         Programming Assignment 9         Problem Scores: 1/1 2/2 1/1 1/1	1/1 1/1 1/1 39/40 5/5
Problem Scores:       1/1         9.4 Case Study: Personality Assessment         Problem Scores:       1/1         9.5 Linear Algebra V: Eigenvelues and Eigenveltors         Problem Scores:       1/1         Problem Scores:       1/1	1/1 1/1 1/1 39/40 5/5

Week 10: Deep Learning	Score
▲ 10.1 Autoencoders	1/1
Problem Scores: 1/1	
▲ 10.2 Distributed Representations	1/1
Problem Scores: 1/1	
▲ 10.3 Feedforward Neural Networks	1/1
Problem Scores: 1/1	
▲ 10.4 Training Neural Networks	1/1
Problem Scores: 1/1	
▲ 10.5 What We Skipped	1/1
Problem Scores: 1/1	
▲ Problem Set 10	14/14
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	
<u> </u>	3/3
Problem Scores: 1/1 1/1 1/1	
▲ Comprehension Quiz 10	10/10
Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1	
4	<b>&gt;</b>
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