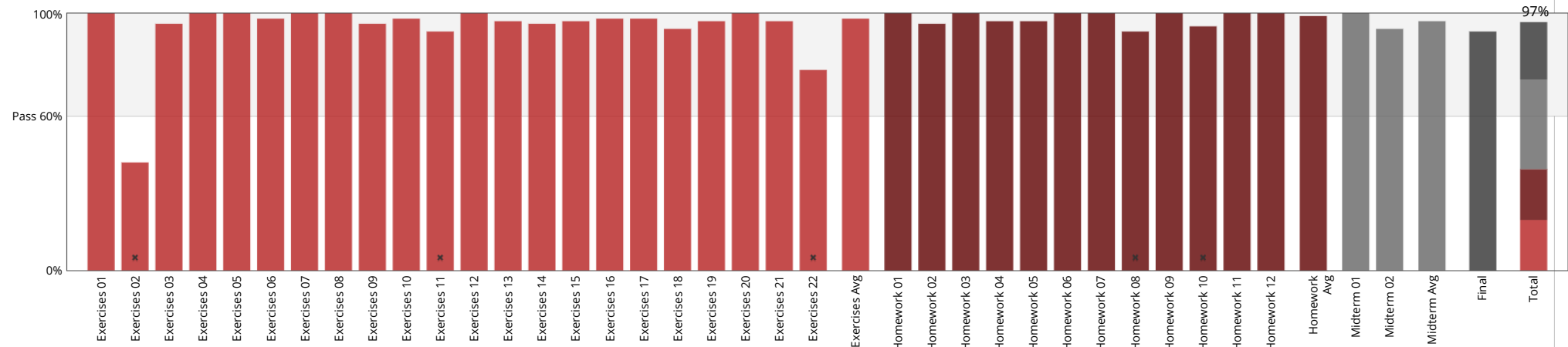


## Course Progress for 'sandipan\_dey' (sandipan.dey@gmail.com)

Your certificate is available

You've earned a certificate for this course.

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Unit 0. Course Overview,  
Syllabus, Guidelines, and  
Homework on Prerequisites

### Course overview

No problem scores in this section

### edX Tutorial

No problem scores in this section

### Discussion forum and collaboration guidelines

No problem scores in this section

### Homework mechanics and standard notation

Practice Scores: 0/0 0/0 0/0 0/0 0/0 0/0 0/0

### Micromasters, Certification, and Honor Pledge

Practice Scores: 0/0

### Homework 0: Probability and Linear algebra Review (65/65) 100%

Homework *due Sep 13, 2019 05:29 IST*

Problem Scores: 1/1 3/3 3/3 1/1 2/2 5/5 4/4 2/2 4/4 3/3 1/1 2/2 3/3 1/1 2/2 4/4  
1/1 6/6 1/1 4/4 2/2 3/3 5/5 2/2 0/0 0/0 0/0 0/0 0/0 0/0 0/0

## Unit 1 Introduction to statistics

### Lecture 1: What is statistics (15/15) 100%

Exercises *due Sep 13, 2019 05:29 IST*

Problem Scores: 1/1 2/2 2/2 2/2 1/1 1/1 1/1 2/2 1/1 1/1 0/0 1/1

### Lecture 2: Probability Redux (14/33) 42%

Exercises *due Sep 13, 2019 05:29 IST*

Problem Scores: 3/3 1/1 0/1 4/4 2/2 0/1 0/1 0/1 0/1 0/1 0/1 0/1 0/2 0/4 0/3 0/1  
3/4 1/1

## Entrance Survey

### Entrance survey

No problem scores in this section

## Unit 2 Foundation of Inference

### Lecture 3: Parametric Statistical Models (23/24) 96%

Exercises *due Sep 20, 2019 05:29 IST*

Problem Scores: 1/1 1/1 1/1 1/1 2/2 4/4 1/1 0/0 2/2 1/1 1/1 1/2 2/2 1/1 1/1 1/1  
1/1 1/1

### Lecture 4: Parametric Estimation and Confidence Intervals (26/26) 100%

Exercises *due Sep 20, 2019 05:29 IST*

Problem Scores: 1/1 1/1 1/1 1/1 1/1 0/0 1/1 1/1 1/1 1/1 1/1 1/1 4/4 1/1 2/2 2/2  
3/3 3/3

### Recitation 1: Confidence Intervals of the mean of Gaussian random variables

No problem scores in this section

### Homework 1: Estimation, Confidence Interval, Modes of Convergence (43/45) 96%

Homework *due Sep 20, 2019 05:29 IST*

Problem Scores: 4/4 3/4 2/2 2/2 0/0 1/1 1/1 2/2 2/3 2/2 1/1 2/2 1/1 2/2 2/2 2/2  
1/1 4/4 3/3 3/3 2/2 1/1

### Recitation 2: Modes of Convergence

No problem scores in this section

### Lecture 5: Delta Method and Confidence Intervals (33/33) 100%

Exercises *due Sep 26, 2019 05:29 IST*

Problem Scores: 1/1 1/1 1/1 1/1 2/2 3/3 2/2 4/4 1/1 3/3 1/1 1/1 1/1 1/1 1/1 6/6  
1/1 1/1 1/1

### Recitation 3: Confidence Intervals of the shift of shifted exponential random variables

No problem scores in this section

### Homework 2: Statistical Models, Estimation, and Confidence Intervals (26/26) 100%

Homework *due Sep 26, 2019 05:29 IST*

Problem Scores: 1/1 2/2 2/2 2/2 2/2 0/0 2/2 3/3 0/0 3/3 1/1 1/1 3/3 4/4

### Lecture 6: Introduction to Hypothesis Testing, and Type 1 and Type 2 Errors (50/51) 98%

Exercises *due Oct 4, 2019 05:29 IST*

Problem Scores: 1/1 2/2 2/2 2/2 1/1 1/1 1/1 1/1 1/1 0/0 1/1 1/1 1/1 1/1 3/3 3/3  
1/1 1/1 1/1 1/1 1/1 1/1 1/1 3/3 1/1 0/1 4/4 3/3 1/1 1/1 3/3 1/1 1/1 2/2  
1/1

### Lecture 7: Hypothesis Testing (Continued): Levels and P-values (38/38) 100%

Exercises *due Oct 4, 2019 05:29 IST*

Problem Scores: 1/1 1/1 5/5 2/2 1/1 1/1 4/4 2/2 2/2 3/3 1/1 3/3 3/3 1/1 1/1 1/1  
4/4 1/1 1/1

### Recitation 4: Introduction to Hypothesis Testing

No problem scores in this section

### Homework 3: Introduction to Hypothesis Testing (37/38) 97%

Homework *due Oct 4, 2019 05:29 IST*

Problem Scores: 1/2 1/1 1/1 3/3 2/2 1/1 2/2 2/2 2/2 1/1 1/1 1/1 3/3 1/1 3/3 1/1  
4/4 1/1 2/2 2/2 2/2

Exercises *due Oct 11, 2019 05:29 IST*

Problem Scores: 1/1 1/1 1/1 4/4 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 3/3  
 2/2 1/1 1/1 2/2 1/1 1/1 1/1 3/3 1/1 1/1 2/2 3/3 1/1

### Recitation 5: Distance measures between distributions

No problem scores in this section

### Lecture 9: Introduction to Maximum Likelihood Estimation (45/47) 96%

Exercises due Oct 11, 2019 05:29 IST

Problem Scores: 2/2 3/3 1/1 0/1 1/1 4/4 4/4 1/1 1/1 1/1 3/3 3/3 4/4 0/0 2/2 0/1  
 1/1 3/3 5/5 3/3 3/3

### Homework 4: TV distance, KL-Divergence, and Introduction to MLE (28/29) 97%

Homework due Oct 11, 2019 05:29 IST

Problem Scores: 1/1 1/1 2/2 1/1 3/3 2/2 1/1 1/1 1/1 2/3 2/2 1/1 3/3 4/4 1/1 1/1  
 1/1

### Lecture 10: Consistency of MLE, Covariance Matrices, and Multivariate Statistics (40/41) 98%

Exercises due Oct 18, 2019 05:29 IST

Problem Scores: 1/1 1/1 1/1 1/1 1/1 2/2 0/1 1/1 1/1 3/3 1/1 2/2 4/4 4/4 4/4 1/1  
 1/1 4/4 1/1 1/1 0/0 1/1 4/4

### Recitation 6: Maximum Likelihood Estimation: Inference for the variance of a Gaussian distribution

No problem scores in this section

### Homework 5: Maximum Likelihood Estimation (19/19) 100%

Homework due Oct 18, 2019 05:29 IST

Problem Scores: 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 2/2 2/2 1/1 4/4

### Lecture 11: Fisher Information, Asymptotic Normality of MLE, Method of Moments (41/44) 93%

Exercises due Oct 25, 2019 17:29 IST

Problem Scores: 3/3 0/2 1/1 2/2 1/1 1/1 0/1 1/1 4/4 1/1 1/1 1/1 1/1 1/1 2/2 3/3  
 2/2 2/2 3/3 2/2 1/1 2/2 2/2 1/1 1/1 1/1

### Recitation 7: Maximum Likelihood Estimator for Multinomial

No problem scores in this section

### Lecture 12: M-Estimation (47/47) 100%

Exercises due Oct 25, 2019 17:29 IST

Problem Scores: 1/1 1/1 3/3 7/7 1/1 1/1 3/3 4/4 2/2 1/1 3/3 1/1 3/3 4/4 2/2 1/1  
 2/2 1/1 2/2 1/1 1/1 1/1 1/1

### Homework 6: Maximum Likelihood Estimation and Method of Moments (54/54) 100%

Homework due Oct 25, 2019 17:29 IST

Problem Scores: 3/3 3/3 3/3 3/3 7/7 6/6 1/1 1/1 1/1 2/2 2/2 3/3 1/1 2/2 1/1 2/2  
 1/1 1/1 1/1 1/1 1/1 1/1 2/2 1/1 1/1 1/1 1/1

### Recitation 8: M-Estimation

**Recitation 8: (Review) MLE Estimation**

No problem scores in this section

**Recitation 9: (Review) Mean Squared Error**

No problem scores in this section

**Recitation 10: (Review) Multivariate Gaussian**

No problem scores in this section

**Recitation 11: (Review) Method of Moments**

No problem scores in this section

Midterm Exam 1

**Midterm Exam 1** (29.5/29.5) 100%

Midterm *due Oct 30, 2019 05:29 IST*

Problem Scores: 5/5 1.5/1.5 1/1 2/2 3/3 1/1 3/3 2/2 1/1 2/2 1/1 2/2 1/1 3/3 1/1

Unit 4 Hypothesis testing

**Lecture 13: Chi Squared Distribution, T-Test** (28/29) 97%

Exercises *due Nov 7, 2019 05:29 IST*

Problem Scores: 1/1 2/2 2/2 0/1 1/1 1/1 1/1 3/3 1/1 2/2 3/3 4/4 1/1 2/2 3/3 1/1

**Recitation 12: Review: Comparisons of two Proportions**

No problem scores in this section

**Recitation 13: T-test**

No problem scores in this section

**Lecture 14: Wald's Test, Likelihood Ratio Test, and Implicit Hypothesis Test** (27/28) 96%

Exercises *due Nov 7, 2019 05:29 IST*

Problem Scores: 1/1 0/0 1/1 4/4 1/1 2/2 1/1 1/1 1/1 2/3 3/3 2/2 1/1 1/1 1/1 1/1  
2/2 2/2

**Recitation 14: Wald's test and Likelihood Ratio Test**

No problem scores in this section

**Homework 7** (27/29) 93%

Homework *due Nov 7, 2019 05:29 IST*

Problem Scores: 1/1 1/1 0/1 1/1 4/4 2/2 1/1 1/1 2/2 1/1 2/2 2/2 1/1 1/2 2/2 1/1  
1/1 2/2 1/1

**Lecture 15: Goodness of Fit Test for Discrete Distributions** (29/30) 97%

Exercises *due Nov 14, 2019 05:29 IST*

Problem Scores: 0/1 1/1 3/3 1/1 2/2 3/3 3/3 1/1 2/2 1/1 1/1 1/1 1/1 1/1 1/1 2/2  
1/1 1/1 3/3

### Recitation 15: Chi Squared Goodness of Fit Test

No problem scores in this section

### Lecture 16: Goodness of Fit Tests Continued: Kolmogorov-Smirnov test, Kolmogorov-Lilliefors test, Quantile-Quantile Plots (41/42) 98%

Exercises *due Nov 14, 2019 05:29 IST*

Problem Scores: 3/3 1/1 1/1 5/5 3/3 2/2 3/3 1/1 1/1 1/1 3/3 2/2 1/1 1/1 2/2 1/1  
1/1 0/1 1/1 1/1 2/2 1/1 4/4

### Recitation 16: Sample Kolmogorov-Smirnov test

No problem scores in this section

### Homework 8 (23/23) 100%

Homework *due Nov 14, 2019 05:29 IST*

Problem Scores: 3/3 1/1 1/1 3/3 1/1 2/2 2/2 2/2 1/1 1/1 1/1 1/1 1/1 3/3

### Recitation 17: (Review) Hypothesis Testing Example with a Uniform Distribution

No problem scores in this section

### Recitation 18: (Review) Which Theta in Wald's test

No problem scores in this section

### Recitation 19: (Review) T test

No problem scores in this section

Unit 5 Bayesian statistics

### Lecture 17: Introduction to Bayesian Statistics (55/56) 98%

Exercises *due Nov 21, 2019 05:29 IST*

Problem Scores: 1/1 1/1 0/1 5/5 7/7 1/1 1/1 1/1 3/3 2/2 1/1 1/1 6/6 9/9 2/2 1/1  
1/1 4/4 2/2 1/1 1/1 1/1 3/3

### Recitation 20: Calculating Bayes Posteriors

No problem scores in this section

### Lecture 18: Jeffreys Prior and Bayesian Confidence Interval (31/33) 94%

Exercises *due Nov 21, 2019 05:29 IST*

Problem Scores: 1/1 0/0 1/1 1/1 2/2 1/1 1/1 2/2 1/1 0/1 2/2 3/3 1/1 3/3 1/1 1/1  
1/1 4/4 4/4 1/2

### Recitation 21: Multinomial Bayesian Estimation

No problem scores in this section

### Recitation 22: Jeffreys Prior

No problem scores in this section

### Homework 9: Bayesian Statistics (42/44) 95%

Homework *due Nov 21, 2019 05:29 IST*

Problem Scores: 3/3 4/4 3/3 1/1 2/2 4/4 2/2 2/2 2/2 2/2 0/1 0/1 1/1 2/2 2/2 0/0  
3/3 3/3 3/3 3/3

### (Optional) Recitation: Jeffreys Prior in Higher Dimension

No problem scores in this section

## Midterm Exam 2

### Midterm Exam 2 (35.7/38) 94%

Midterm *due Nov 28, 2019 05:29 IST*

Problem Scores: 2/2 1/1 1/1 1/1 2/2 0.67/1 1/1 2/2 1/2 2/2 1/1 1/1 2/2 3/3 5/5  
0/1 1/1 1/1 3/3 2/2 1/1 2/2

## Unit 6 Linear Regression

### Lecture 19: Linear Regression 1 (28/29) 97%

Exercises *due Dec 12, 2019 05:29 IST*

Problem Scores: 1/1 2/2 1/1 4/4 1/1 1/1 1/1 1/1 1/1 1/1 2/2 1/1 1/1 1/1 0/1  
1/1 1/1 2/2 2/2 2/2

### Lecture 20: Linear Regression 2 (40/40) 100%

Exercises *due Dec 12, 2019 05:29 IST*

Problem Scores: 2/2 3/3 5/5 2/2 1/1 6/6 1/1 1/1 1/1 1/1 1/1 3/3 1/1 3/3 1/1 2/2  
1/1 1/1 2/2 1/1 1/1

### Recitation 23: Hypothesis Test for Linear Regression

No problem scores in this section

### Recitation 24: Multiple Hypothesis Testing and Bonferroni Correction

No problem scores in this section

### Recitation 25: Ridge Regression

No problem scores in this section

### Homework 10 Linear regression (25/25) 100%

Homework *due Dec 12, 2019 05:29 IST*

Problem Scores: 2/2 3/3 2/2 5/5 1/1 1/1 3/3 2/2 1/1 1/1 1/1 1/1 2/2

## Unit 7 Generalized Linear Models

### Lecture 21: Introduction to Generalized Linear Models; Exponential Families (37/38) 97%

Exercises *due Dec 19, 2019 05:29 IST*

Problem Scores: 2/3 1/1 1/1 1/1 1/1 2/2 4/4 4/4 1/1 4/4 3/3 1/1 3/3 1/1 2/2 4/4  
2/2 0/0

### Lecture 22: GLM: Link Functions and the Canonical Link Function (7/9) 78%

Exercises *due Dec 19, 2019 05:29 IST*

Problem Scores: 1/1 0/0 1/1 1/1 0/1 1/1 2/2 1/1 0/1

### Recitation 26: Poisson and Gamma Generalized Linear Models

No problem scores in this section

### Recitation 27: Hypothesis Test for Logistic regression

No problem scores in this section

### Homework 11 (39/39) 100%

Homework *due Dec 19, 2019 05:29 IST*

Problem Scores: 5/5 2/2 3/3 1/1 5/5 2/2 3/3 1/1 3/3 3/3 5/5 2/2 2/2 2/2



Final exam

<b><u>Final Exam</u></b> (40/43) 93%																
Final due Dec 24, 2019 05:29 IST																
Problem Scores:	1/1	2/2	1/1	1/1	1/1	1/1	2/2	1/1	2/2	1/1	2/2	0/1	2/2	2/2	2/4	2/2
2.5/2.5	0/0	0.5/0.5	2/2	2/2	2.5/2.5	1/1	1.5/1.5	2/2	1.5/1.5	1.5/1.5						

(Optional) Unit 8 Principal component analysis

<b><u>(Optional) Preparation Exercises for Principal Component Analysis</u></b> (54/54) 100%																
due Dec 24, 2019 05:29 IST																
Practice Scores:	3/3	3/3	2/2	2/2	2/2	1/1	5/5	1/1	1/1	1/1	6/6	3/3	1/1	3/3	3/3	6/6
1/1	4/4	3/3	2/2	1/1												
<b><u>(Optional) Lecture 23: Principal Component Analysis</u></b> (20/22) 91%																
due Dec 24, 2019 05:29 IST																
Practice Scores:	1/1	0/1	1/1	1/1	1/1	0/1	1/1	3/3	2/2	4/4	2/2	1/1	1/1	1/1	1/1	
<b><u>(Optional) Recitation 28: Principal Component Regression</u></b>																
No problem scores in this section																

Until Next Time

<b><u>Until Next Time</u></b>
No problem scores in this section

Exit Survey

<b><u>Exit survey.</u></b>
No problem scores in this section