## 1 Exams Distribution and Tests of Significance

### 1.1 Exam 1 Distribution

The table below compares the distribution of Exam 1 between the two sections.

| Class | $Q_{1}$ | $Q_{2}$ | $Q_{3}$ | IQR | Whiskers | $N$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basu | 73.5 | 80.5 | 92 | 18.5 | $46-99$ | 22 |
| Buckmire | 78 | 88 | 93 | 15 | $69-98$ | 23 |

### 1.2 Exam 2 Distribution

The table below compares the distribution of Exam 2 between the two sections.

| Class | $Q_{1}$ | $Q_{2}$ | $Q_{3}$ | IQR | Whiskers | $N$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basu | 85 | 91 | 101 | 16 | $65-105$ | 22 |
| Buckmire | 94 | 98 | 101 | 7 | $87-104$ | 23 |

### 1.3 Exam 3 Distribution

The table below compares the distribution of the Final Exam between the two sections.

| Class | $Q_{1}$ | $Q_{2}$ | $Q_{3}$ | IQR | Whiskers | $N$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basu | 100.75 | 120 | 157 | 56.25 | $68-189$ | 22 |
| Buckmire | 104 | 130 | $? ?$ | 45 | $85-185$ | 23 |

Note: It looks like I forgot to record one of the vital stats. I will have to do that when I get to campus.

### 1.4 Exam ?? Test of Significance

The next question is what test of significance should we do. I mean are we going to compare the mean of each individual exam? Or just the final exam? We can't do the course grade comparison since we had different quizzes. I mean we could but would that be a fair comparison?

## 2 Quiz 5 Analysis of Distribution

### 2.1 Overall Quiz 5 Comparison

The table below displays the five number summary of the two sections of differential equations in regards to quiz 5. The table also displays the distribution of the students expected score and actual score in the two sections.

| Class | $Q_{1}$ | $Q_{2}$ | $Q_{3}$ | IQR | Whiskers | $N$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basu Expected | 6.75 | 8 | 9 | 2.25 | $4-10$ | 22 |
| Buckmire Expected | 7 | 9 | 3 | 3 | $6-10$ | 23 |
| Basu Actual | 8 | 8.5 | 10 | 2 | $5.5-10$ | 22 |
| Buckmire Actual | 8 | 9 | 10 | 2 | $6-10$ | 23 |

### 2.2 Gender Analysis of Quiz 5

Between the two sections of differential equations there were a total of 45 students. 22 students in Basu's class and 23 students in Buckmire's class. Between the two sections there were 9 women and 36 men. The tables below draw a comparison between the expected and actual Quiz 5 score between the two genders.

| Gender | $Q_{1}$ | $Q_{2}$ | $Q_{3}$ | IQR | Whiskers | $N$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Women Expected Quiz 5 Score | 5.5 | 8 | 9 | 3.5 | $4-10$ | 9 |
| Women Actual Quiz 5 Score | 7.75 | 9.5 | 10 | 2.25 | $5.5-10$ | 9 |
| Men Expected Quiz 5 Score | 7 | 8 | 10 | 3 | $5-10$ | 36 |
| Men Actual Quiz 5 Score | 8 | 9 | 10 | 2 | $6-10$ | 36 |

