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**NORTH SOUTH UNIVERSITY**

**Center of Excellence in higher Education**

**The first private university in Bangladesh**

**School of Business**

**Department of Management**

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| **Course Name:**  | Applied Statistics |
| **Course Code** **& Section No:** | BUS 173 |
| **Semester:** | Spring 2017 |

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| Instructor & Department Information  |
| 1. **Instructor Name:**
 | Khan Muhammad Saqiful Alam |
| 1. **Office**
 | NAC 867 |
| 1. **Office Hours:**
 | ST – 12 00 to 1 00; 3 20 to 4 20; MW – 1 30 to 2 30; 4 20 to 5 20 |
| 1. **Office Phone:**
 | 02-55668200, Ext: 6075; +8801798615115 |
| 1. **Email Address:**
 | khan.alam@northsouth.edu; saqiful@gmail.com |
| 1. **Department:**
 | Management |
| 1. **Links:**
 | Personal Website – www.sqinsu.weebly.comNorth South University Website: <http://www.northsouth.edu>School of Business Website: http://www.northsouth.edu/academic/sob/ |

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| Course & Section Information  |
| **Class Time & Location** | ST – 1 to 2 40 – NAC 405ST – 4:20 to 5 50 – NAC 503 |
| **Course Prerequisite(s)** | BUS 172 |
| **Course Credit Hours** | 3:0 |

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|  Textbook(s)  |
| **Author**  | **Title**  | **Edition & Year** | **Publisher** | **ISBN** |
| Mann, Prem | Introductory Statistics | 7th Edition  | JOHN WILEY & SONS, INC. |  |

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| Reference(s)  |
| **Ken Black** | Business Statistics | 6th Edition | Wiley |  |

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| Assessment Strategy and Grading Scheme |
| **Grading tool** | **Points** |
| Mid 1 Exam | 15% ( 20%-30% MCQ, 70% to 80% Broad Math Questions) |
| Mid 2 Exam | 20% ( 0%-10% MCQ, 90% to 100% Broad Math Questions) |
| Quiz | 10%  |
| Final Exam | 25% ( 20%-30% MCQ, 70% to 80% Broad Math Questions) |
| Project | 25% ( application of software) |
| Attendance  | 5% |

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| **COURSE CONTENTS &SCHEDULE** |
| **Lecture Topic** |
| 1 | Introduction and Review BUS172  |
| 2 | Hypothesis Testing – tests of mean of a normal distribution (z-test, t-test), type I & type II error, power of test  |
| 3 | Hypothesis Testing – tests of variance, population proportion. |
| 4 | Hypothesis Testing - tests of difference between two means, difference between two population proportions and equality of variances. |
| 5 | Hypothesis Testing - tests of difference between two means, difference between two population proportions and equality of variances. |
| 6 | Chi- squire Tests |
| 7 | Chi- squire Tests |
| 8 | Revision |
| 9 | **Mid I (lecture 1 to 8)** |
| 10 | Analysis of variance |
| 11 | Non Parametric methods: Analysis of categorical data |
| 12 | Non Parametric methods: Analysis of categorical data |
| 13 | Non Parametric methods: Analysis of categorical data |
| 14 | Non Parametric methods: Analysis of categorical data |
| 15 | Exam practice and revision |
| 16 | **Mid Term 2 (lecture 10 to 15)** |
| 17 | Simple Regression |
| 18 | Simple Regression |
| 19 | Multiple Regression |
| 20 | Multiple Regression |
| 21 | Time Series Analysis |
| 22 | Time Series Analysis |
| 23 | Time Series Analysis |
| 24 | Final Exam Review |
|  | **Final Exam ( lecture 17 to 24)** |