KINGSBOROUGH COMMUNITY COLLEGE
The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

Department: Math and Computer Science **Date:** 2/21/2018

Title Of Course Or Degree: Business Statistics - BA/MAT 2200

Change(s) Initiated: (Please check)

- ☐ Closing of Degree
- ☐ Closing of Certificate
- ☐ New Certificate Proposal
- ☐ New Degree Proposal
- ☐ New Course
- ☐ New 82 Course
- ☐ Deletion of Course
- ☐ Change in Degree or Certificate Requirements
- ☐ Change in Degree Requirements (adding concentration)
- ☑ Change in Pre/Co-Requisite
- ☐ Change in Course Designation
- ☐ Change in Course Description
- ☑ Change in Course Title, Numbers Credit and/or Hour
- ☐ Change in Academic Policy
- ☐ Pathways Submission:
  - ☐ Life and Physical Science
  - ☐ Math and Quantitative Reasoning
  - ☐ A. World Cultures and Global Issues
  - ☐ B. U.S. Experience in its Diversity
  - ☐ C. Creative Expression
  - ☐ D. Individual and Society
  - ☐ E. Scientific World

☐ **Other (please describe):** _____

PLEASE ATTACH MATERIAL TO ILLUSTRATE AND EXPLAIN ALL CHANGES

DEPARTMENTAL ACTION

Action by Department and/or Departmental Committee, if required:

Date Approved: 2/21/2018 **Signature, Committee Chairperson:** _____

I have reviewed the attached material/proposal

Signature, Department Chairperson: R Yaisa 2-1

Revised/Dec.2015/AK

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COMMUNITY COLLEGE
★ DREAMS BEGIN HERE ★

TO: Spring 2018 Curriculum Committee

FROM: Department of Mathematics & Computer Science

DATE: 2/21/2018

RE: Change in prerequisite to Business Statistics (BA 2200 / MAT 2200)

The Department of Mathematics & Computer Science is proposing a change in prerequisite for Business Statistics (BA 2200 / MAT 2200):

FROM:

(1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math; **or** (2) Successful completion of Pre-Algebra and a grade of 45 or higher on the Elementary Algebra portion of the CUNY Mathematics Skills Test (COMPASS), **or** (3) Successful completion of Pre-Algebra and successful completion of a Kingsborough Math M200 workshop culminating in a grade of 88 or higher on the CEAFE exam, **or** (4) Successful completion of Pre-Algebra and an "S" grade in MAT M200 taken at Kingsborough; **or** (5) MAT R300

TO:

(1) MAT R300; **or** (2) MAT 9800; **or** (3) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a minimum score of 55 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math.

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★ DREAMS BEGIN HERE ★

TO: Spring 2018 Curriculum Committee

FROM: Department of Mathematics & Computer Science

DATE: February 21, 2018

RE: Change in Number of Course Credits to Business Statistics (BA/MAT 2200)

The Department of Mathematics & Computer Science and the Department of Business propose a change in number of course credits for BA 2200 / MAT 2200:

FROM:
4 credits, 4 hrs

TO:
3 credits, 4 hrs. (2 lecture hrs., 2 hr. lab)

Rationale for Change: Changes reflect curricular adjustments

KINGSBOROUGH COMMUNITY COLLEGE
THE CITY UNIVERSITY OF NEW YORK

COURSE SYLLABUS: Mathematics 2200

1. **DEPARTMENT, COURSE NUMBER, AND TITLE :**
   Department of Mathematics & Computer Science
   MAT 2200/BA 2200 - Business Statistics

2. **DOES THIS COURSE MEET A GENERAL EDUCATION/CUNY CORE CATEGORY?**
   - ☐ **Life and Physical Science**
   - ☒ **Math and Quantitative Reasoning**
   - ☐ **A. World Cultures and Global Issues**
   - ☐ **B. U.S. Experience in its Diversity**
   - ☐ **C. Creative Expression**
   - ☐ **D. Individual and Society**
   - ☒ **E. Scientific World**

   IF YES, COMPLETE AND SUBMIT WITH THIS PROPOSAL A CUNY COMMON CORE SUBMISSION FORM.

3. **DESCRIBE HOW THIS COURSE TRANSFERS (REQUIRED FOR A.S. DEGREE COURSE). IF A.A.S. DEGREE COURSE AND DOES NOT TRANSFER, JUSTIFY ROLE OF COURSE, E.G. DESCRIBE OTHER LEARNING OBJECTIVES MET:**

   Queens College: ECON 249. Statistics as Applied to Economics and Business, 3 credits
   Bronx Community College: BUS 41 Business Statistics, 3 credits
   York College: ECON220 (Liberal Arts) Introduction to Economic Statistics, 3 credits

4. **BULLETIN DESCRIPTION OF COURSE:**

   An introduction to probability and statistics as it applies to business applications including: data summary measures, discrete random variables and probability distributions, sampling methodologies and analysis, hypothesis testing, and regression analysis. Special emphasis will be given to solutions of practical business problems.

5. **CREDITS AND HOURS* (PLEASE CHECK ONE APPROPRIATE BOX BELOW BASED ON CREDITS):**

1-credit:	☐ 1 hour lecture ☐ 2 hours lab/field/gym
2-credits:	☐ 2 hours lecture ☐ 1 hour lecture, 2 hours lab/field ☐ 4 hours lab/field
3-credits:	☐ 3 hours lecture ☒ 2 hours lecture, 2 hours lab/field ☐ 1 hour lecture, 4 hours lab/field ☐ 6 hours lab/field

4-credits:	☐ 4 hours lecture ☐ 3 hours lecture, 2 hours lab/field ☐ 2 hours lecture, 4 hours lab/field ☐ 1 hour lecture, 6 hours lab/field ☐ 8 hours lab/field

More than 4-credits: ☐ Number of credits: ____ (explain mix lecture/lab below)

___ Lecture ____Lab

Explanation:_____

***Hours are hours per week in a typical 12-week semester**

6. **NUMBER OF EQUATED CREDITS IN ITEM #5:** N/A

7. **COURSE PREREQUISITES AND COREQUISITES (IF NONE PLEASE INDICATE FOR EACH)**

A. PREREQUISITE(S): (1) MAT R300; or (2) MAT 9800; or (3) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 on the College Level Math portion of the ACCUPLACER CUNY ASSESSMENT TEST IN MATH;
B. COREQUISITE(S): NONE
C. PRE/COREQUISITE(S): NONE

8. **BRIEF RATIONALE TO JUSTIFY PROPOSED COURSE TO INCLUDE:**
   A. ENROLLMENT SUMMARY IF PREVIOUSLY OFFERED AS AN 82 (INCLUDE COMPLETE 4-DIGIT 82 COURSE NUMBER)
   B. PROJECTED ENROLLMENT: 56 - 100
   C. SUGGESTED CLASS LIMITS: 28
   D. FREQUENCY COURSE IS LIKELY TO BE OFFERED: Spring, Summer, Fall and Winter
   E. ROLE OF COURSE IN DEPARTMENT'S CURRICULUM AND COLLEGE'S MISSION

9. **LIST COURSE(S), IF ANY, TO BE WITHDRAWN WHEN COURSE IS ADOPTED (NOTE THIS IS NOT THE SAME AS DELETING A COURSE):** N/A

10. **IF COURSE IS AN INTERNSHIP, INDEPENDENT STUDY, OR THE LIKE, PROVIDE AN EXPLANATION AS TO HOW THE STUDENT WILL EARN THE CREDITS AWARDED. THE CREDITS AWARDED SHOULD BE CONSISTENT WITH STUDENT EFFORTS REQUIRED IN A TRADITIONAL CLASSROOM SETTING:**

11. **PROPOSED TEXT BOOK(S) AND/OR OTHER REQUIRED INSTRUCTIONAL MATERIAL(S):**

Business Statistics: For Contemporary Decision Making, Ken Black 9th Ed. KBCC Custom Ed.

12. **REQUIRED COURSE FOR MAJOR OR AREA OF CONCENTRATION?**

IF YES, COURSE IS REQUIRED, SUBMIT A SEPARATE CURRICULUM TRANSMITTAL COVER PAGE INDICATING A "CHANGE IN DEGREE OR CERTIFICATE REQUIREMENTS" AS WELL AS A PROPOSAL THAT MUST INCLUDE A RATIONALE AND THE FOLLOWING ADDITIONAL PAGES: A "CURRENT" DEGREE WITH ALL PROPOSED DELETIONS (STRIKEOUTS) AND ADDITIONS (BOLDED TEXT) CLEARLY INDICATED, AND A "PROPOSED" DEGREE, WHICH DISPLAYS THE DEGREE AS IT

WILL APPEAR IN THE CATALOG (FOR A COPY OF THE MOST UP-TO-DATE DEGREE/CERTIFICATE REQUIREMENTS CONTACT AMANDA KALIN, EXT. 4611).

NYSED GUIDELINES OF 45 CREDITS OF LIBERAL ARTS COURSE WORK FOR AN ASSOCIATE OF ARTS DEGREE (A.A.), 30 CREDITS FOR AND ASSOCIATE OF SCIENCE DEGREE (A.S.), AND 20 CREDITS FOR AN APPLIED ASSOCIATE OF SCIENCE DEGREE (A.A.S.) MUST BE ADHERED TO FOR ALL 60 CREDIT PROGRAMS.

13. IF OPEN ONLY TO SELECTED STUDENTS SPECIFY POPULATION:

Open to students who have satisfied the prerequisite.
Students who have completed MAT 19A0 or MAT 2000 or MAT/BIO 9100 will not receive credit for this course.

14. EXPLAIN WHAT STUDENTS WILL KNOW AND BE ABLE TO DO UPON COMPLETION OF COURSE:

Provide students in the Business concentration a firm foundation in the application of statistics to business making decisions.

15. METHODS OF TEACHING –E.G. LECTURES, LABORATORIES, AND OTHER ASSIGNMENTS FOR STUDENTS, INCLUDING ANY OF THE FOLLOWING: DEMONSTRATIONS, GROUP WORK, WEBSITE OR E-MAIL INTERACTIONS AND/OR ASSIGNMENTS, PRACTICE IN APPLICATION OF SKILLS, ETC.:

Lecture and computer laboratory

16. ASSIGNMENTS TO STUDENTS:

Homework assignments
Projects

17. DESCRIBE METHOD OF EVALUATING LEARNING SPECIFIED IN #15 - INCLUDE PERCENTAGE BREAKDOWN FOR GRADING. IF A DEVELOPMENTAL COURSE INCLUDE HOW THE NEXT LEVEL COURSE IS DETERMINED AS WELL AS NEXT LEVEL PLACEMENT.

Homework assignments
Classroom examinations

18. TOPICAL COURSE OUTLINE FOR THE 12 WEEK SEMESTER (WHICH SHOULD BE SPECIFIC REGARDING TOPICS COVERED, LEARNING ACTIVITIES, AND ASSIGNMENTS):

HOURS	TOPICS
1-3	Frequency Distributions Construction of a frequency distribution Class limits Cumulative frequency distributions Graphic presentations of frequency distributions

L 4-7	Descriptive and Summary Measures Frequency Distributions Mean Median Mode Distance measures-quartiles, percentiles Variance and standard deviation
8	Examination
L 9-15	Introduction to Probability Definitions & terminology Joint probability Marginal probability Counting principles and techniques
L 16- 20	Discrete Random Variables and Probability Distributions Random variables Characteristics of probability distribution functions Binomial distribution Statistics for Business with Computer Applications Poisson distribution Expected values for probability distributions
21	Examination
L 22-25	Sampling Methods Fundamentals sampling techniques Sampling error Questioning design
26-28	Estimation Confidence interval
L 29-32	Hypothesis Testing Determining sample size Rationale for hypothesis testing
33	Examination
34-37	Chi-Squared and ANOVA Testing One- and B two B tailed tests

38-43	Regression and Correlation Analysis Notation and methods of calculations Expressing relationships among variables Scatter diagrams Linear regression Estimating using the regression line Correlation analysis B measures of association
44-47	Index Numbers Limitations to regression and correlation analysis Need and use of index numbers Index number construction Common index numbers
48	Review

19. Selected Bibliography and source materials:

Kvanli, Introduction to Business Statistics, 4th ed., South-Western Publishing Company, 1996

Daniel, Wayne W., Business Statistics for Management & Economics, 7th ed., Houghton Mifflin Company, 1995

Weiers, Ronald M., Introduction to Business Statistics, 3rd ed., Brooks/Cole Publishing Company, 1997

Mason, Robert D., Statistical Techniques in Business & Economics Business Statistics software, 9th ed., Richard D. Irwin, 1996

Brightman, Statistics for Business Problem Solving, 2nd ed., Wadsworth Publishing Company, 1994

Revised 01/2018