DATA ANALYTICS
MINOR CONCENTRATION

A minor concentration requires a minimum of six courses, representing at least eighteen credits, in the minor field of study. In addition, a department may add academic prerequisites or requirements in related fields, but the total will not exceed 60% of the department's major program requirements. Minor requirements are listed under departmental entries. In order to complete requirements for a minor, the student must take the majority of credits in the minor field at King's. Minor areas of concentration (minors) are permitted, but not required.

Monitoring of student progress in pursuing a minor in **Data Analytics** is necessary to enhance the student learning experience. Therefore, a written declaration must be submitted by the student to the Registrar.

Minor Requirements *(6 courses – 17-21 credits)*	Credits
Data Analytics Basics/Excel Competency (Two courses - 6 credits)	
CIS 110: Introduction to Business Information Systems	3
MATH 123: Finite Mathematics and Business Analytics [a]	3
Statistics (3 or 4 credits) (Choose one course)	
ECON 221: Statistics and Predictive Analytics	3
MATH 126: Introduction to Statistics	3
MATH 128: Introduction to Statistics and Data Analysis	4
SOC 251: Probability and Statistics in Social Science	3
PSYC 220/Lab – Statistics for the Behavioral Sciences	3 or 4
PS 221: Probability and Statistics in Social Science	3
Programming (3 credits) (Choose one course)	
CS112: Introduction to Computer Programming	3
CS111: Programming for Science and Engineering	3
Applications (2-5 credits) (Choose one course)	
ACCT 340: Advanced Managerial Accounting	3
AT 410: Evidence Based Medicine I	2
BIOL 330: Introductory Bioinformatics	3
BUS 363/L: Operations Management (and lab) (3 + 1 for lab)	4
BUS 380/380L: Health Care Operations Mgmt. & Lab	4
CHEM 243: Analytical Chemistry (includes lab)	5
CHEM 244: Instrumental Analysis (includes lab)	5
CIS 255/GEOG 255: Geographic Information Systems	3
CS256/L CIS356: Database Mgmt. Systems	3 or 4
ECON 222: Statistics and Econometrics	3
ENGR 360: Probability and Engineering Statistics	3
ENST 410: Environmental Sampling and Analysis	2
EXSC 480: Research & Design	2
continued on next page…	

Applications continued...

GEOG 312: Dynamics of Population	3
GEOG 355: Applied Geographic Information Systems	3
HIST 261: Research and Methods in History	
(Revised to cover statistics, data summarization and visualization)	3
MATH 250: Linear Algebra	4
MATH 361: Probability and Statistics I	3
MATH 362: Probability and Statistics II	3
MATH 363: Mathematical Modeling	3
MKT 360: Digital Marketing/Lab	4
MKT 450: Marketing Research	3
NEUR 310: Research Methods in Neuroscience	3
PHYS 260: Introduction to Numerical Techniques in Physics	4
PHYS 430: Dynamical Systems and Chaos	3
PSYC 221: Research Methods	4
SOC 252/252L: Research Methods in Social & Behavioral Science	4

Project-Based Learning (3 credits) (Choose one course) [b]

ACCT 440: Accounting Information Systems	3
AT 550: Evidence-Based Medicine 2	3
CIS 471: Applied Global Information Systems	3
CS490: Special Topics: Machine Learning	3
ECON 323: Econometrics	3
PS 422: Theories and Research Methods in International Relations	3

(a)   Alternatives to Math 123 include any of the following:
- MATH 125 Calculus (4)
- MATH 127 Logic and Axiomatics (3)
- MATH 129 Analytic Geometry and Calculus I (4)

(b)   Alternative project-based learning options include any of the following:
- Collaborating with an instructor of another existing course to incorporate a data analytics project.
- Completing an independent study that requires a data analytics project.
- Completing an internship involving data analytics.

For more information regarding the **Mathematics** minor including but not limited to course descriptions and department chairpersons, please visit the online college course catalog.