

KEAN UNIVERSITY
COLLEGE OF NATURAL, APPLIED and HEALTH SCIENCES
(78202) B.A. MATHEMATICAL SCIENCES (Data Analytics Option) 120 S.H.

EFFECTIVE DATE: Fall 2016

START TERM: _____

NAME			
STUDENT ID#			
GENERAL EDUCATION: 47-49 Semester Hours (S.H.)		ACADEMIC MAJOR: 42 Semester Hours (S.H.)	
Foundation Requirements¹ 13 S.H.		**Foundation Core 18 S.H.	
GE 1000 Transition to Kean ² or GE 3000 Transfer Transitions ²	1	MATH 2415 Calculus I	4
**ENG 1030 Composition	3	MATH 2416 Calculus II	4
MATH 1054 Precalculus ^{3,4}	3	MATH 2995 Matrix and Linear Algebra	3
COMM 1402 Speech Communication	3	MATH 3415 Calculus III	4
GE 2024 Research & Technology	3	MATH 3544 Probability and Math Statistics	3
Disciplinary & Interdisciplinary Distribution Requirements		**Concentration 15 S.H.	
		MATH 2526 Applied Statistics	3
Humanities 9 S.H.		MATH 3700 Big Data Computing	3
*ENG 2403 World Literature	3	MATH 3710 Foundations of Data Analysis	3
(Select two courses from different areas)		MATH 4710 Big Data Visualization	3
Fine Arts or Art History	3	MATH 4720 Statistical Data Mining	3
Philosophy or Religion	3		
Foreign languages (Must take I and II for credit)	3		
Music or Theatre	3		
Interdisciplinary	3		
Social Sciences 9 S.H.		**Major Electives 9 S.H. (With advisement, from 3000 – 4000 level MATH courses)	
* HIST 1062 Worlds of History	3	Suggested courses	
(Select two courses from different areas)		MATH 3760 Big Data Statistical Analysis I	
Psychology	3	MATH 3780 Big Data Techniques	
Economics or Geography	3	MATH 3560 Regression Analysis	
Political Science	3		
Sociology or Anthropology	3	FREE ELECTIVES: 25-27 S.H.	
Interdisciplinary	3	Additional courses in Computer Science ⁵ , Physics, or other Sciences, Technology, Economics, or Management recommended ⁵ . No Mathematics courses allowed other than MATH 1000 50% of free electives must be taken at the 3000-4000 level.	
Science and Mathematics 11-12 S.H.			
CPS 1231 Fund of Comp Science ¹	4		
PHYS 2091 or PHYS 2095 or CHEM 1083	4		
Additional GE Science Course: BIO, ES, ENV, CHEM, or PHYS	3-4		
Health & Physical Education 2 or 3 S.H.			
ID 1225 Issues in Contemporary Health or			
ID 1010 Leisure & Recreation in Multicultural Society	3		
OR		Special Notes:	
Physical Education	1	¹ See prerequisites and equivalencies.	
Physical Education	1	² University Requirement for Graduation for all undergraduate students that must be satisfied in one of two ways: Complete GE 1000 (all freshmen and transfers entering with 0-29 credits) OR complete GE 3000 (transfers entering with 30 credits or more)	
***G.E. and Major Capstone 3 S.H.		³ Students who do not qualify on the placement test to take MATH 1054 must take MATH 1000 first.	
MATH 4890 Senior Seminar in Mathematics (WE)	3	⁴ Students whose qualifying score on the placement test makes them eligible to take Math 2415 may take that course instead. In that case the student must take another 3 credits in free electives to total 120 S.H.	
ADDITIONAL REQUIRED COURSES: 4 S.H.		⁵ Students will be recommended to complete a minimum of 6 credits at 3000-4000 in Computer Science, Biology, Environmental Sciences, Finance, Economics or Accounting.	
CPS 2231 Computer Org and Programming	4	*G.E. required course	
		**Eng 1030 and all major courses require a grade of C or better.	
		TOTAL CREDITS:	