KEAN UNIVERSITY – COLLEGE OF NATURAL, APPLIED AND HEALTH SCIENCES

(78297) B.A. IN MATHEMATICAL SCIENCES (Teacher Certification option P-12): 132 SEMESTER HOURS (S.H.)

For students graduating from Ocean County College with the A.A. in Liberal Arts or or the A.S. General Studies with a Mathematics Concentration and transferring to Kean University

Kean University Courses are in Blue (59 S. H.)   Ocean County College Courses are in Green (73 S. H.)

EFFECTIVE DATE: Fall 2016   **KEAN DECLARATION AND GRADUATION GPA REQUIREMENT: 3.0**

GENERAL EDUCATION REQUIREMENTS: 49 S.H.			ACADEMIC MAJOR COURSES[2]: 40 S.H.		
Foundation Requirements: 13 S.H.			**Required: Foundation Core[2]: 18 S.H.**		
GE 3000 Transfer Transitions		1	MATH 2415 Calculus I	MATH 265 Calculus I	4
ENG 1030 English Comp[1]	ENGL 151 English I[1]	3	MATH 2416 Calculus II	MATH 266 Calculus II	4
MATH 1054 Precalculus[2,3]	MATH 192 Pre-Calculus II[2,3]	3	MATH 2995 Matrix & Lin. Algebra	MATH 275 Linear Algebra	3
COMM 1402 Speech Comm[1]	COMM 154 Public Speaking[1]	3	MATH 3415 Calculus III	MATH 267 Calculus III	4
GE 2024 Research & Technology	ENGL 152 English II	3	MATH 3544 Probability and Math Statistics		3
			Required: Concentration[2]: 13 S.H.		
DISCIPLINARY & INTERDISCIPLINARY DISTRIBUTION COURSES			MATH 2800 Mathematical Software		1
Humanities: 9 S.H.			MATH 3110 Introductions to Proofs		3
ENG 2403 World Literature	General Education Literature (GHUM)	3	MATH 3342 Euclidean and Non-Euclidean Geometry		3
*Select **Two** courses from below*			MATH 3455 Differential Equations	MATH 280 Differential Equations	3
Fine Arts or Art History	Select two courses from the OCC GHUM courses, excluding English and History. Note: Credit for a foreign language is granted upon completion of 6 credits of the same language, with 3 credits used here and 3 credits used in Additional Required Courses.	3	MATH 3891 History of Mathematics		3
Philosophy or Religion			Math 3351 Advanced Calculus		3
Foreign Languages			**Required: Major Electives[2]: 6 S.H.** (With advisement, 3000-4000 level)		
Music or Theatre		3	MATH 3000-4000 level course		3
Interdisciplinary			MATH 3000-4000 level course		3
Social Sciences: 9 S.H.			**Professional Education: 30 S.H.** Must pass the Praxis Core Academic Skills for Educators and have a GPA of 3.0 before applying for Admission to the Middle and Secondary Education (MSE) Department. **Grades of "Satisfactory" in EMSE 3801 and EMSE 4811 are required.**		
HIST 1000 or HIST 1062	General Education History (GHIS)	3			
PSY 1000 General Psychology	PSYC 172 Intro to Psychology	3			
SOC 1000 Intro to Sociology	SOC 181 Intro to Sociology	3			
			Sophomore Level		
Science and Mathematics: 12 S.H.			EMSE 2801 Intro Field Experience[1]	EDUC 175 Intro to Education[1]	3
CPS 1231 Fund. Comp. Sci.	CSIT 165 Programming I	4	**Junior Level**		
PHYS 2091 Gen. Physics I or PHYS 2095 (recommended)	PHYS 171 Physics I or PHYS 281 General Physics I (recommended)	4	EDUC 3000 Curriculum Evaluation & Learner[1]		3
			EDUC 3401 Language Arts / Reading K-12[1]		3
Select a class from Biology, Physics, Chemistry or Astronomy	Select a science class from the OCC GSCL list.	4	EMSE 3220 Mathematics Education K-12 (WE)[1,4]		3
			EMSE 3122 Computers in Education[1]		3
			EMSE 3801 Field Experience / Subject Area K-12		2
Health/Physical Education: 3 S.H.			EMSE 3903 English Lang Learning in America (taken w/EMSE 3801)[1]		1
ID 1225 Issues in Contemporary Health	HEHP 225 Contemporary Health	3	**Senior Level**		
			EMSE 4811 Prof. Internship / Subject Area K-12 **(Praxis II Math Exam must be passed before taking this course)**		9
GE and Major Capstone[2]: 3 S.H.			**Professional/GE Capstone Course**		
MATH 4890 Senior Seminar in Mathematics (WE)[2,4]		3	EDUC 4000 Teacher and Classroom[1]		3
Additional Required Courses: 13 S.H.			**TOTAL CREDITS** **132 S.H.**		
CPS 2231 Comp. Org. & Prog.	CSIT 166 Programming II	4			
PSY 2110 Psychology of Adolescence		3	[2] Requires a grade of C or better.		
ID 2955 Disabled Persons in American Society		3	[3] Students whose qualifying score on the placement test makes them eligible to take MATH 2415 (MATH 265 at OCC) can start with that course, and will have an additional 3 credits of free electives to total 132 degree credits. Students whose qualify score does not make them eligible to take MATH 192 or MATH 191 will need to take the appropriate pre-requisite courses.		
One additional Disciplinary & Interdisciplinary course (Physics, Computer Science or Economics recommended)	One course not already taken from PHYS, CSIT or ECON at OCC or second foreign language class	3			
[1] Requires a grade of B- or better.			[4] WE = Writing Emphasis course.		

REVISED 08/2016