## KEAN UNIVERSITY – COLLEGE OF Natural Applied & Health Sciences (78305) B.S. in Computer Science: 124 S.H.

EFFECTIVE DATE: September 2009		START TERM:	
NAME		TRANSFER INSTITUTIONS (X) Credits:	
STUDENT ID#		In Progress	
GENERAL EDUCATION: 36 Semester Hours (S.H.)			
Foundation Requirements 13 S.H.		ACADEMIC Major ** S.H. Total Credits	41
G.E. 1000 Transition to Kean <sup>2</sup>	1	REQUIRED: Major Core <sup>3, 9</sup> 14 S.H.	
ENG 1030 Composition <sup>3</sup>	3	CPS 2231 Computer Organization & Programming S2	4
MATH 1054 Precalculus <sup>4</sup>	3	CPS 2232 Data Structures & Algorithm Analysis S3	4
COMM 1402 Speech Communication	3	CPS 2390 Organization & Architecture S3	3
GE 2024 Research & Technology	3	CPS 3250 Computer Operating Systems S4	3
DISCIPLINARY & INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS:		Major Concentration Requirements <sup>3, 9</sup> 15 S.H.	
Humanities: 6 S.H. (from different areas)		CPS 3440 Advanced Algorithms OR S7	3
*ENG 2403 World Literature	3	CPS 4501 Formal Languages & Automata	
Fine Arts/Art History	3	CPS 3962 Object Oriented Analysis & Design S6	3
Philosophy or Religion	3	CPS 4150 Computer Architecture S5	3
Foreign Languages (Must take I and II for credit) <sup>5</sup>	3	CPS 4200 Systems Programming S6	3
Music or Theatre	3	CPS 4222 Principles of Networking S8	3
Interdisciplinary	3		
		Major Electives <sup>3, 7, 9</sup> 12 S.H.	
Social Sciences: 6 S.H. (from different areas)		CPS 3xxx or 4xxx S5	3
*HIST 1000 Civil Society in America	3	CPS 3xxx or 4xxx S6	3
Psychology	3	CPS 3xxx or 4xxx S7	3
Economics or Geography	3	CPS 3xxx or 4xxx S8	3
Political Science	3		
Sociology or Anthropology	3		
Interdisciplinary	3		
Science and Mathematics: 8 S.H.		FREE ELECTIVES: S.H. at least 50% must be 3000/4000 level	17
CPS 1231 Fundamentals of Computer Science 3, 6 S1	4		
Lab Science <sup>8</sup> S5	4		
Biology; Chemistry; Physics; Geology; Meteorology; Earth Science; Astronomy			
G.E. and Major** Capstone: 3 S.H. <sup>3, 9</sup>			
CPS 4951 Sr. Project or CPS 4961 Sr. Research S8	3		
		Other Transfer:	
Additional Required ** Courses: 3 30 S.H.			
Bio II, Chem II, Metr II, or Phys II <sup>8</sup> S6	4		
Tech 1500 Data Communications S1	4	Special Notes:	
Tech 2504 Digital Circuits & Systems S4	4	*G.E. required course	
Eng 3091 Technical Writing S5	3	**Courses required by Major	
Math 2110 Discrete Structures S2	3	***All Major courses require a grade of C or better	
Math 2526 Applied Statistics S4	3	>Require advisor permission	
Math 2411 Calculus I <sup>4</sup> S2	3	Note: See foreign language requirements	
Math 2412 Calc II or Math 2995 Matrix & Linear Algebra S3	3	TOTAL CREDITS:	
Select one from: Math 3120, 3155, 3225, 3451, 3455,or <i>S7</i>	3	Advisor:	
Math 3544, 3815, 3940, 4800		Advisor Signature:	

## (78305) B.S. in Computer Science

three credits may be applied to free electives.

Education requirement and the student may take another three credits in Major electives.

## **NOTE ON FREE ELECTIVES**

Comments:

CPS 4999 Cooperative Education may be counted as a free elective (no more than 3 S.H.). There are four prerequisites for CPS 4999 which include the following:

- (a) a minimum of 21 credits in Computer science, including all Core Requirements in the major;
- (b) a minimum 3.00 GPA in the major;
- (c) a minimum 2.75 cumulative GPA; and
- (d) approval of the Departmental Advisory Committee.

## **ADMISSION REQUIREMENTS**

The Department of Computer Science has formally adopted the following standards for admission to all options of the Computer Science major:

- 1. Minimum cumulative GPA of 2.5 at the time of admission to the major.
- 2. Completion of at least 9 credits of CPS courses at Kean University with grade of "C" or better in each.

Evaluator's	
Signature	Date
Advisor's	
Signature	Date
Advisor's	
Signature	Date
Advisor's	
Signature	Date
Advisor's	
Signature	Date
Advisor's	
Signature	Date

Your major department is located in the HH Hennings Hall, Room 215, phone (908)737-3800.

YOU MUST BRING THIS EVALUATION AND YOUR KEAN UNIVERSITY TRANSCRIPT TO ALL ADVISING/REGISTRATION SESSIONS.

<sup>&</sup>lt;sup>2</sup> Required of all Freshmen and Transfers with fewer than 10 credits.

<sup>&</sup>lt;sup>3</sup> All major and supporting courses, including the Capstone, require a grade of C or better.

<sup>&</sup>lt;sup>4</sup> Students who do not qualify on the placement test to take MATH 1054, must take Math 1000 from Free Electives instead. If they qualify on the placement test, or grades, for Math 2411, then they should take Math 2411 in Foundations, and Math 2412 in GÉ Science and Math Requirements.

<sup>5</sup> Credit granted only upon completion of two semesters of elementary or intermediate foreign language. Three credits may be

applied to Humanities and

<sup>&</sup>lt;sup>6</sup> Students who have had prior programming experience may enter CPS 2231 directly. In this case, CPS 2231 will be counted as a General

<sup>&</sup>lt;sup>7</sup>Select four CPS courses (or max 2 IT/TECH courses from an approved list), with department advisement, at the 3000 level or

<sup>&</sup>lt;sup>8</sup> Select any 2 course lab science sequence, with 4 credits in GE and 4 credits in Additional Requirements.

<sup>&</sup>lt;sup>9</sup> Students must take at least half of their CPS credits at Kean University