

# KEAN UNIVERSITY – College of Natural, Applied, & Health Sciences (78306) B.S. Computer Science (Information Systems Option): 120 S.H.

EFFECTIVE DATE: Fall 2016

START TERM: \_\_\_\_\_

|   |                                      |  |                             |
|---|--------------------------------------|--|-----------------------------|
| NAME  |                                      | TRANSFER INSTITUTIONS (X)  | Credits:                    |
| STUDENT ID#   |                                      | In Progress  |                             |
| <b>GENERAL EDUCATION: 35 Semester Hours (S.H.)</b>                      |                                      |  |                             |
| <b>Foundation Requirements</b>  | <b>13 S.H.</b>                       | <b>ACADEMIC MAJOR</b> <sup>3</sup>   | <b>42 S.H.Total Credits</b> |
| GE 1000 Transition to Kean or GE 3000 Transfer Transitions <sup>2</sup> | 1                                    | <b>REQUIRED: Major Core</b> <sup>3,8</sup>   | <b>18 S.H.</b>              |
| ENG 1030 Composition <sup>3</sup>                                       | 3                                    | CPS 1231 Foundations Of Computer Science <sup>6</sup>                                  | 4                           |
| MATH 1000 <sup>3,4</sup>  | 3                                    | CPS 2231 Computer Organization & Programming   | 4                           |
| COMM 1402 Speech Communication  | 3                                    | CPS 2232 Data Structures   | 4                           |
| GE 2024 Research & Technology   | 3                                    | CPS 2390 Organization & Architecture   | 3                           |
|   |                                      | CPS 3250 Computer Operating Systems  | 3                           |
| <b>DISCIPLINARY &amp; INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS:</b>  |                                      | <b>MAJOR CONCENTRATION REQUIREMENTS</b> <sup>3,8</sup> <b>12 S. H.</b>                 |                             |
| <b>Humanities:</b>  | <b>6 S.H. (from different areas)</b> | CPS 3351 Information Systems Programming   | 3                           |
| *ENG 2403 World Literature  | 3                                    | CPS 3740 Database Management   | 3                           |
| Fine Arts/Art History   | 3                                    | CPS 3962 Object Oriented Analysis & Design <sup>WE</sup>                               | 3                           |
| Philosophy or Religion  | 3                                    | CPS 4931 Distributed Systems Applications  | 3                           |
| Foreign Languages (Must take I and II for credit) <sup>5</sup>          | 3                                    | <b>MAJOR ELECTIVES</b> <sup>3,7,8</sup>  | <b>12 S.H.</b>              |
| Music or Theatre  | 3                                    | CPS 3xxx/4xxx  | 3                           |
| Interdisciplinary   | 3                                    | CPS 3xxx/4xxx  | 3                           |
|   |                                      | CPS 3xxx/4xxx  | 3                           |
| <b>Social Sciences:</b>   | <b>6 S.H. (from different areas)</b> | CPS 3xxx/4xxx  | 3                           |
| *HIST 1062 Worlds of History  | 3                                    |  |                             |
| Psychology  | 3                                    | <b>ADDITIONAL REQUIRED COURSES</b> <sup>3</sup> (Continued)                            |                             |
| Economics or Geography  | 3                                    | Select <u>one</u> of the approved tracks <sup>9</sup> (continued on back)              |                             |
| Political Science   | 3                                    | <b>Accounting &amp; Finance:</b>   |                             |
| Sociology or Anthropology   | 3                                    | Acct 2200 Accounting I   | 3                           |
| Interdisciplinary   | 3                                    | FIN 3310 Mgt of Corporate Finance I (prereq ECO 1021)                                  | 3                           |
|   |                                      | ACCT 2210 Accounting II,   | 3                           |
|   |                                      | or FIN 3311 Mgt of Corporate Finance II  |                             |
| <b>Science and Mathematics: 7 S.H.</b>                                  |                                      | <b>Quantitative Management:</b>  |                             |
| MATH 1054 <sup>3,4</sup>  | 3                                    | MGS 2030 Principles of Management  | 3                           |
| Lab Science BIO 1000 / CHEM 1083 / PHYS 2091                            | 4                                    | MGS 3032 Org. Behavior or MGS 3040 Comm. Devl. Internet (prereq MGS 2150 or Math 2526) | 3                           |
| ASTR 1100, GEOL 1200, METR 1300 accepted.                               |                                      | MGS 4010 Operations Management   | 3                           |
| <b>G.E. and Major Capstone: 3 S.H.</b>                                  |                                      | <b>Web Systems:</b>  |                             |
| CPS 4951 Sr. Design/Development Project                                 | 3                                    | GD 1000 Comp. Graphic Design I (DSN1101 pre-req)                                       | 3                           |
| or CPS 4961 Sr. Research  |                                      | GD 2000 Comp. Graphic Design II or GE 3320 Web Interact.                               | 3                           |
|   |                                      | TECH 3601 New Media Programming  | 3                           |
| <b>ADDITIONAL REQUIRED COURSES:</b> <sup>3</sup>                        | <b>27 - 28 S.H.</b>                  | <b>FREE ELECTIVES:</b>   | <b>14/16 S.H.</b>           |
|   |                                      | <b>at least 50% must be 3000/4000 level</b>  |                             |
| ENG 3091 Technical Writing  | 3                                    |  |                             |
| MATH 2110 Discrete Structures   | 3                                    |  |                             |
| MATH 2526 Applied Statistics  | 3                                    |  |                             |
| COMM 2405 Public Speaking   | 3                                    |  |                             |
| TECH 2925 Web Client-Side Programming                                   | 3/4                                  | <b>Special Notes:</b>  |                             |
| or Lab Sci II (4 S.H.) BIO 1400/CHEM 1084/PHYS 2092                     |                                      | <b>*G.E. required course</b>   |                             |
| MATH 2415 (or 2411) Calculus I, <sup>4</sup>                            | 3/4                                  | <b>TOTAL CREDITS:</b>  |                             |
| or MATH 2995 Matrix & Linear Algebra,                                   |                                      | Advisor:   |                             |
| or MATH 2400 Calculus for Business                                      |                                      | Advisor Signature:   |                             |

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<sup>1</sup> See approved GE Distribution courses at [http://www.kean.edu/~gened/forms/Approved\\_GE\\_Distribution\\_Courses\\_Oct2009.pdf](http://www.kean.edu/~gened/forms/Approved_GE_Distribution_Courses_Oct2009.pdf)

<sup>2</sup> Requirement for graduation 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).

<sup>3</sup> ENG 1030 and all Major and Additional Required courses, including Capstone, require a 'C' or better.

<sup>4</sup> Students whose qualifying score on the placement test makes them eligible to take MATH 1054 or MATH 2415 may take that course instead. If Math 2415 is taken for GE credits, then Math 2995 is expected in the three courses which are ORed together. In these cases, with 12 credits in math, the student may take three more credits in free electives.

<sup>5</sup> Credit granted only upon completion of two semesters of elementary or intermediate foreign language (3 credits applied to Humanities and 3 credits applied to free electives).

<sup>6</sup> Students who have had prior programming experience may enter CPS 2231 directly. CPS 2231 will be counted as a General Education requirement and the student may take another four credits in free electives to total 120 S.H.

<sup>7</sup> Select 4 CPS (or max one TECH course from approved list) with advisement at the 3000 level or higher.

<sup>8</sup> Students must take at least half of their CPS credits at Kean University

<sup>9</sup> May be another 3-course Computing Application sequence from a list approved by the department; options presented on front of guide sheet, with 5<sup>th</sup> year MS CIS program detailed here. Other alternatives possible from Biology, Criminal Justice, Economics, Marketing and Psychology; please speak to your faculty advisor.

| Track                     | Courses   | Course Title           |
|---------------------------|-----------|------------------------|
| MS CIS program            | Math 2416 | Calculus II            |
| (5 <sup>th</sup> year MS) | CPS 3440  | Analysis of Algorithms |
|                           | CPS 3498  | Computer Security      |

## NOTE ON FREE ELECTIVES

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 Major Core Requirements, and CPS 3351;
- (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 TO THE DEGREE REQUIREMENTS:** The Computer Science Dept. 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 12 credits of CPS courses at Kean University with a grade of "C" or better in each.

Evaluator's Signature \_\_\_\_\_ Date \_\_\_\_\_

The Computer Science Department is located in Willis 408, phone (908) 737-4250.

**BRING THIS EVALUATION AND YOUR KEAN TRANSCRIPT TO ALL ADVISING SESSIONS.**