(78310) B.A. in Computer Science: 4-year Study Plan

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| Name: | Faculty Advisor: |
| Kean Id# | Catalog Year: |

Notes:

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| **1st Year Fall (16)** | **1st Year Spring (14)** |
| **MATH 1000** Algebra (3) | **MATH 1054** Precalculus or **MATH 1044** (3) |
| **COMM 1402** Speech Communication (3) | **CPS 1231** Fundamentals of CS (4) |
| **ENG 1030** College Composition (3) | **CPS 1032** Microcomputer Applications - **Free Elective** #1 (3) |
| **GE 1000/3000** Transition to Kean (1) | **Lab Science** (4) |
| **HIST 1062** Worlds of History (3) |  |
| **ID 1400** Comp. in Modern Society (3) | **CPS 1996** Research Initiative Freshmen - **Free Elective** #2 (1) |

Internship, summer course, or summer research

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| **2nd Year Fall (16)** | **2nd Year Spring (17/18)** |
| **MATH 2110** Discrete Structures (3) | **MATH 2526** Applied Statistics I (3) or **MGS 2150** (4) |
| **CPS 2231** Computer Organization & Programming (4) | **CPS 2232** Data Structures & Algorithms (4) |
| **TECH 2920** Computer Systems (3) | **COMM 3590** Business & Professional Communication (3) |
| **ENG 2403** World Literature (3) | **Social Sciences** (3) |
| **GE 2024** Research and Technology (3) | **Free Elective** #3 (3) |
|  | **CPS 2010** Career Education - **Free Elective** #4 (1) |

Internship, summer course, or summer research

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| **3rd Year Fall (15)** | **3rd Year Spring (15)** |
| **CPS 3440** Analysis of Algorithms (FA)(3) | **CPS Elective** #1 (3) |
| **Concentration** #1 (3) | **Concentration** #2 (3) |
| **ENG 3091** Technical Writing (3) | **TECH 3910** IT Project Management (3) |
| **Humanities** (3) | **Free Elective** 3000/4000 #6 (3) |
| **Free Elective** #5 (3) | **Free Elective** 3000/4000 #7 (3) |

Internship, summer course, or summer research

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| **4th Year Fall (15)** | **4th Year Spring (12)** |
| **CPS Elective** #2 (3) | **CPS 4951** Capstone (SP)(3) or **CPS 4961** Sr. Research (3) |
| **CPS Elective** #3 (3) | **CPS Elective** #4 (3) |
| **Concentration** #3 (3) | **Concentration** #5 (3) |
| **Concentration** #4 (3) | **Free Elective** 3000/4000 #9 (3) |
| **Free Elective** 3000/4000 #8 (3) |  |

Internship, summer course, or summer research

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| **Fall offered CPS Major Electives** | **Spring offered CPS Major Electives** |
| **CPS 2390** Computer Organization & Architecture (FA/SP)(3) | |
| **CPS 3250** Computer Operating Systems (FA/SP) (3) | |
| **CPS 3310** Programming Languages (FA)(3) | **CPS 3320** Python Programming (SP)(3) |
| **CPS 3351** Information Systems Programming (FA)(3) | **CPS 3498** Computer Security (FA/SP)(3) |
| **CPS 3498** Computer Security (FA/SP)(3) | **CPS 3500** Programming WWW (SP)(3) |
| **CPS 3740** Database Management Systems (FA/SP)(3) | **CPS 3525** Programming in the UNIX Environment (SP)(3) |
| **CPS 4301** Software Engineering (FA)(3) | **CPS 3601** Human Computer Interaction (SP)(3) |
| **CPS 4498** Digital Forensics (FA)(3) | **CPS 3740** Database Management Systems (FA/SP)(3) |
| **CPS 4745** Visualization Design & Development (FA)(3) | **CPS 4721** Data Mining Principles (SP)(3) |
| **CPS 4802** AI Machine Learning Algorithms (FA)(3) | **CPS 4801** Artificial Intelligence Applications (SP)(3) |
| **CPS 4931** Distributed Systems Applications (FA)(3) |  |