B.S. in Artificial Intelligence (Major Code: AI) : 4-year Study Plan

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

Notes:

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| **1st Year Fall (15)** | **1st Year Spring (17)** |
| **MATH 1054** Precalculus (3) | **MATH 2110** Discrete Structures (3) |
| **CPS 1231 Fundamentals of Computer Science** (4) | **CPS 2231** Computer Programming (4) |
| **ENG 1030** College Composition (3) | **COMM 1402** Speech Comm. (3) |
| **GE 1000/3000** Transition to Kean (1) | **ID 1400** Comp. in Modern Society (3) - **Free Elective** #1 |
| **Lab Science 1** (4) | **Lab Science 2** (4) |

Internship, summer course, or summer research

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| **2nd Year Fall (17)** | **2nd Year Spring (16)** |
| **MATH 2415** Calculus I (4) | **MATH 2995** Matrix & Linear Algebra (3) |
| **CPS 2232** Data Structures (4) | **TECH 2920** Computer Systems (3) |
| **CPS 2800** Fundamentals of AI (3) | **CPS 3830** Machine Learning Foundations (3) |
| **HIST 1062** Worlds of History (3) | **ENG 2403** World Literature (3) |
| **GE 2024** Research and Technology (3) | **Social Sciences** (3) |
|  | **CPS 2010** Career Education - **Free Elective** #2 (1) |

Internship, summer course, or summer research

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| **3rd Year Fall (15/16)** | **3rd Year Spring (15/16)** |
| **MATH 2526** Applied Statistics I (3) | **CPS 3820** Trustworthy and Responsible AI (3) |
| **CPS 3440** Analysis of Algorithms (FA) (3) | **CPS 4841** Computer Vision or **CPS 4845** Language Processing |
| **CPS 3840** Deep Learning and Applications (3) | **CPS Elective** #1 (3) |
| **MATH or Science** #1 (3/4) | **MATH or Science** #2 (3/4) |
| **Humanities** (3) | **ENG 3091** Technical Writing (3) |

Internship, summer course, or summer research

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| **4th Year Fall (12/13)** | **4th Year Spring (12)** |
| **MATH Elective** 3xxx (3/4) | **CPS 4951** Capstone (SP)(3) or **CPS 4961** Sr. Research (3) |
| **CPS 4851** Edge AI or **CPS 4861** Human Centered AI | **CPS Elective** #3 (3) |
| **CPS Elective** #2 (3) | **CPS Elective** #4 (3) |
| **Free Elective** 3000/4000 #4 (3) | **Free Elective** 3000/4000 #5 (3) |
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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 3330** Software Development with Frameworks (SP)(3) |
| **CPS 3498** Computer Security (FA)(3) | **CPS 3500** Programming WWW (SP)(3) |
| **CPS 4150** Computer Architecture (FA)(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 (SP)(3) |
| **CPS 4745** Visualization Design & Development (FA)(3) | **CPS 3962** Object Oriented Analysis & Design (SP)(3) |
| **CPS 4802** AI Machine Learning Algorithms (FA)(3) | **CPS 4200** Systems Programming (SP)(3) |
| **CPS 4931** Distributed Systems Applications (FA)(3) | **CPS 4721** Data Mining Principles (SP)(3) |
| **CPS 4601** User Experience Design (TBA)(3) | **CPS 4801** Artificial Intelligence Applications (SP)(3) |