

# Enterprise AI

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(120 credit minimum)

## First Year

| 1st Semester   |   | Credits   |
|--|---|-----------|
| FYS SEM  | First-Year Student Seminar                            | 0         |
| DS 100   | Basic Foundations of Data Science                     | 3         |
| ENGL 101   | English Composition: Introduction to Academic Writing | 3         |
| IS 117   | Introduction to Website Development                   | 3         |
| MATH 138   | General Calculus I *                                  | 3         |
| Science Literacy GER ( <a href="https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/">https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/</a> ) |   | 3         |
| <b>Term Credits</b>  |   | <b>15</b> |

## 2nd Semester

|   |   |           |
|---|---|-----------|
| ENGL 102  | English Composition: Introduction to Writing for Research | 3         |
| DS 110  | Basic Foundations of Artificial Intelligence              | 3         |
| IS 265  | Introduction to Information Systems                       | 3         |
| Science Literacy with Lab GER ( <a href="https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/">https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/</a> ) |   | 4         |
| MATH 105  | Elementary Probability and Statistics                     | 3         |
| <b>Term Credits</b>   |   | <b>16</b> |

## Second Year

### 1st Semester

|                     |                               |           |
|---------------------|-------------------------------|-----------|
| General Elective 1  |                               | 3         |
| IS 218              | Building Web Applications     | 3         |
| MGMT 216            | Business Data Analytics       | 3         |
| IS 350              | Computers, Society and Ethics | 3         |
| IS 247              | Designing the User Experience | 3         |
| <b>Term Credits</b> |                               | <b>15</b> |

### 2nd Semester

|  |   |           |
|--|---|-----------|
| YWCC 207   | Computing & Effective Com                     | 1         |
| History and Humanities GER 200 level ( <a href="https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/">https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/</a> ) |   | 3         |
| General Elective 2   |   | 3         |
| CS 118   | Introduction to Computer Science II in Python | 3         |
| IS 331   | Database Design Management and Applications   | 3         |
| IS 390   | Requirements Analysis and Systems Design      | 3         |
| <b>Term Credits</b>  |   | <b>16</b> |

## Third Year

### 1st Semester

|   |  |           |
|---|--|-----------|
| COM 312<br>or COM 313   | Effective Communication<br>or Writing in the Workplace | 3         |
| History and Humanities GER 300+ level ( <a href="https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/">https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/</a> ) |  | 3         |
| IS 392  | AI-Driven Text Analytics                               | 3         |
| IS 465  | Data Analytics for Business Information Systems        | 3         |
| IS 375  | Discovering User Needs for UX                          | 3         |
| <b>Term Credits</b>   |  | <b>15</b> |

### 2nd Semester

|                                 |                               |   |
|---------------------------------|-------------------------------|---|
| YWCC 307                        | Professional Dev in Computing | 1 |
| General Elective 3 <sup>2</sup> |                               | 3 |

|  |   |            |
|--|---|------------|
| IS 480   | Data-Centric AI   | 3          |
| General Elective 4   |   | 3          |
| IS 448   | Usability & Measuring UX                                      | 3          |
| IS 455   | IS Mgmt & Business Processes                                  | 3          |
| <b>Term Credits</b>  |   | <b>16</b>  |
| <b>Fourth Year</b>   |   |            |
| <b>1st Semester</b>  |   |            |
| General Elective 4 <sup>2</sup>  |   | 3          |
| IE 492<br>or ENTR 210  | Engineering Management<br>or Introduction to Entrepreneurship | 3          |
| IT 310   | E-Commerce Technology   | 3          |
| MGMT 480   | Managing Technology and Innovation                            | 3          |
| Humanities and Social Science Senior Seminar GER ( <a href="https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/">https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/</a> ) |   | 3          |
| <b>Term Credits</b>  |   | <b>15</b>  |
| <b>2nd Semester</b>  |   |            |
| General Elective 6 <sup>2</sup>  |   | 3          |
| General Elective 7 <sup>2</sup>  |   | 3          |
| Select one of the following:   |   | 3          |
| IS 491<br>or IT 491  | Senior Project - IS<br>or IT Capstone Project                 |            |
| IS 425   | Enterprise AI Applications & Infrastructure                   | 3          |
| <b>Term Credits</b>  |   | <b>12</b>  |
| <b>Total Credits</b>   |   | <b>120</b> |

<sup>1</sup> **Math:** Math: We highly recommend MATH 333 Probability and Statistics to replace MATH 105 Elementary Probability and Statistics, particularly for students contemplating advanced or graduate work in computing. We also encourage you to take one or more advanced statistics courses as free electives, such as MATH 341 Statistical Methods II or MATH 344 Regression Analysis both of which require MATH 333 Probability and Statistics as a prerequisite.

<sup>2</sup> Independent Study (optionally leading to the Undergraduate Thesis Option): We encourage you to consider an independent study (IS 488) as part of your electives as juniors and seniors. You could then continue with an Undergraduate Thesis (IS 489), which optionally can substitute for IS 491 or IT 491. The thesis option is explained further on the Informatics Department web site. Please consult your advisor as early in your studies as possible to plan appropriately for all of these opportunities.

\* Student can take MATH 111 (Calculus I) instead of MATH 138 (General Calculus I)