**Artificial Intelligence Study Plan – Academic Year 2024–2025**

**Total Credit Hours: 132 credit hours**

**First Year: First Semester**

* MATH 101 – Calculus I (4 credit hours)  
  Prerequisite: MATH 002
* GIAS 101 – Islamic Culture (3 credit hours)  
  Prerequisite: none
* CS 111 – Introduction to Computing and Programming (4 credit hours)  
  Prerequisite: PCS 001
* ENGL 101 – First Year Composition (3 credit hours)  
  Prerequisite: ENGL 005
* PHYS 111 – Introduction to Physics (3 credit hours)  
  Prerequisite: MATH 002

**First Year: Second Semester**

* MATH 102 – Calculus II (4 credit hours)  
  Prerequisite: MATH 101
* GIAS 102 – Arabic Language Skills (3 credit hours)  
  Prerequisite: none
* CS 112 – Object Oriented Programming (4 credit hours)  
  Prerequisite: CS 111
* ENGL 102 – Introduction to Report Writing (3 credit hours)  
  Prerequisite: ENGL 101
* SE 262 – Software Engineering (3 credit hours)  
  Prerequisite: CS 112  
  Co-requisite: CS 112

**Second Year: First Semester**

* MATH 201 – Differential Equations (3 credit hours)  
  Prerequisite: MATH 102
* CS 221 – Operating Systems (4 credit hours)  
  Prerequisite: CS 112
* CS 201 – Introduction to Discrete Systems (3 credit hours)  
  Prerequisite: CS 112
* CS 211 – Data Structures and Algorithms (4 credit hours)  
  Prerequisite: CS 112
* AI 381 – Artificial Intelligence I (3 credit hours)  
  Prerequisite: CS 112  
  Co-requisite: CS 211

**Second Year: Second Semester**

* STAT 232 – Probability and Statistics (3 credit hours)  
  Prerequisite: MATH 102
* MATH 204 – Linear Algebra (3 credit hours)  
  Prerequisite: MATH 102
* ENGL 201 – Technical Writing (3 credit hours)  
  Prerequisite: ENGL 102
* CS 232 – Computer Networks (4 credit hours)  
  Prerequisite: CS 112
* AI 372 – Ethics and Professionalism (2 credit hours)  
  Prerequisite: none
* AI 382 – Artificial Intelligence II (3 credit hours)  
  Prerequisite: AI 381

**Third Year: First Semester**

* MATH 303 – Numerical Methods (3 credit hours)  
  Prerequisite: MATH 201
* AI 418 – Human–Computer Interaction (3 credit hours)  
  Prerequisite: none
* AI 305 – Introduction to Machine Learning (4 credit hours)  
  Prerequisite: MATH 204
* AI 361 – Image Processing (4 credit hours)  
  Prerequisite: MATH 204
* CS 351 – Fundamentals of Database Systems (4 credit hours)  
  Prerequisite: CS 112

**Third Year: Second Semester**

* AI 385 – Introduction to Computer Vision (4 credit hours)  
  Prerequisite: AI 361
* AI 407 – Introduction to Robotics (4 credit hours)  
  Prerequisite: AI 305
* AI 417 – Introduction to Deep Learning (4 credit hours)  
  Prerequisite: AI 305
* AI 312 – Natural Language Processing (3 credit hours)  
  Prerequisite: AI 382
* AI 306 – Data Mining (3 credit hours)  
  Prerequisite: AI 305

**Fourth Year: First Semester**

* AI 491 – Capstone Project I (3 credit hours)  
  Prerequisite: none
* FC 313 – Cyber Security (3 credit hours)  
  Prerequisite: CS 232
* AI 438 – Selected Topics in Data Science (2 credit hours)  
  Prerequisite: AI 306
* GSOS xxx – Social Sciences Elective (3 credit hours)  
  Requires College Approval
* GHAL xxx – Humanities, Arts, and Languages Elective (3 credit hours)  
  Requires College Approval

**Fourth Year: Second Semester**

* AI 492 – Capstone Project II (3 credit hours)  
  Prerequisite: AI 491

**Option A: Co‑op Track**

* AI 493 – Co‑op (9 credit hours)  
  Replaces the three elective courses below  
  Requires College Approval

**Option B: Electives Track**

* AI xxx – Professional Elective I (3 credit hours)  
  Requires College Approval
* C3S xxx – College Elective III (3 credit hours)  
  Requires College Approval
* AI xxx – Professional Elective II (3 credit hours)  
  Requires College Approval

**Summer Practical Training**

* AI 394 – Summer Practical Training (1 credit hour)  
  Prerequisite: Year 3 Core Courses

**Note:**  
AI 493 Co‑op will replace the three corresponding courses in the co‑op plan (i.e., three elective courses in Level 8).