**Architectural Engineering Study Plan – Academic Year 2024–2025  
Total Credit Hours: 134 credit hours**

**First Year: First Semester (Total: 18 credit hours)**

* **MATH 101 – Calculus I (4 credit hours)  
  Prerequisite: MATH 002**
* **PHYS 101 – General Physics I (4 credit hours)  
  Prerequisite: MATH 101  
  Co-requisite: MATH 101**
* **CHEM 101 – General Chemistry (4 credit hours)  
  Prerequisite: none**
* **ENGL 101 – First Year Composition (3 credit hours)  
  Prerequisite: ENGL 005**
* **GHAL xxx – Humanities, Arts and Languages Elective (3 credit hours)  
  Prerequisite: none**

**First Year: Second Semester (Total: 18 credit hours)**

* **MATH 102 – Calculus II (4 credit hours)  
  Prerequisite: MATH 101**
* **PHYS 102 – General Physics II (4 credit hours)  
  Prerequisite: PHYS 101**
* **ENGL 102 – Introduction to Report Writing (3 credit hours)  
  Prerequisite: ENGL 101**
* **CS 113 – Introduction to Programming for Engineers (Python) (3 credit hours)  
  Prerequisite: none**
* **ENGG 103 – Introduction to Engineering Drawing (1 credit hour)  
  Prerequisite: none**
* **GEO 144 – Geology (3 credit hours)  
  Prerequisite: none**

**Second Year: First Semester (Total: 17 credit hours)**

* **MATH 201 – Differential Equations (3 credit hours)  
  Prerequisite: MATH 102**
* **AE 211 – Introduction to Architecture Design & Graphics (2 credit hours)  
  Prerequisite: ENGG 103**
* **AE 213 – History of Architecture (2 credit hours)  
  Prerequisite: none**
* **ENGG 203 – Statics and Dynamics (4 credit hours)  
  Prerequisite: PHYS 101**
* **ENGL 201 – Technical Writing (3 credit hours)  
  Prerequisite: ENGL 102**
* **GIAS 101 – Islamic Culture (3 credit hours)  
  Prerequisite: none**

**Second Year: Second Semester (Total: 16 credit hours)**

* **MATH 202 – Calculus III (3 credit hours)  
  Prerequisite: MATH 102**
* **AE 212 – Architectural Design I (3 credit hours)  
  Prerequisite: AE 211**
* **AE 222 – Applications of CAD & BIM Systems (2 credit hours)  
  Prerequisite: AE 211**
* **AE 232 – Building Construction, Materials & Technology I (2 credit hours)  
  Prerequisite: AE 211**
* **ME 201 – Thermodynamics (3 credit hours)  
  Prerequisite: PHYS 102, MATH 102**
* **CE 212 – Strength of Materials (3 credit hours)  
  Prerequisite: ENGG 203 or CE 201**

**Third Year: First Semester (Total: 17 credit hours)**

* **AE 301 – Fluid Mechanics (3 credit hours)  
  Prerequisite: ENGG 203, ME 201**
* **AE 311 – Architectural Design II (3 credit hours)  
  Prerequisite: AE 212**
* **AE 331 – Building Construction, Materials & Technology II (2 credit hours)  
  Prerequisite: AE 232**
* **AE 343 – Mechanical Systems in Buildings (3 credit hours)  
  Prerequisite: ENGG 203**
* **CE 311 – Structural Analysis (3 credit hours)  
  Prerequisite: CE 212**
* **GIAS 102 – Arabic Language Skills (3 credit hours)  
  Prerequisite: none**

**Third Year: Second Semester (Total: 17 credit hours)**

* **AE 332 – Building Construction Documents (2 credit hours)  
  Prerequisite: AE 331**
* **AE 342 – Electrical Systems & Illumination in Building (3 credit hours)  
  Prerequisite: PHYS 102**
* **AE 344 – HVAC Systems (3 credit hours)  
  Prerequisite: AE 301**
* **CE 312 – Reinforced Concrete Design (3 credit hours)  
  Prerequisite: CE 311**
* **STAT 342 – Statistical Methods for Engineers (3 credit hours)  
  Prerequisite: MATH 102**
* **GSOS xxx – Social Sciences Elective (3 credit hours)  
  Prerequisite: none**

**Summer Field Experience II**

* **AE 394 – Summer Field Experience II (1 credit hour)  
  Prerequisite: none**

**Fourth Year: First Semester (Total: 15 credit hours)**

* **AE 411 – Architectural Design III (3 credit hours)  
  Prerequisite: AE 311**
* **AE 461 – Construction Economy (2 credit hours)  
  Prerequisite: none**
* **CE 413 – Steel Design (3 credit hours)  
  Prerequisite: CE 311**
* **AE 491 – Capstone Project I (1 credit hour)  
  Prerequisite: Senior Status ≥ 98 credit hours**
* **AE 4xx – Professional Elective I (3 credit hours)  
  Prerequisite: none**
* **GDMC xxx – Diversity and Multiculturalism Elective (3 credit hours)  
  Prerequisite: none**

**Fourth Year: Second Semester (Total: 15 credit hours)**

* **AE 462 – Projects Management (3 credit hours)  
  Prerequisite: AE 491**
* **AE 492 – Capstone Project II (3 credit hours)  
  Prerequisite: AE 491**
* **AE 4xx – Professional Elective II (3 credit hours)  
  Prerequisite: none**
* **AE 4xx – Professional Elective III (3 credit hours)  
  Prerequisite: none**
* **GIAS xxx – Islamic Studies Elective (3 credit hours)  
  Prerequisite: none**