

**REQUIREMENTS FOR THE BACHELOR OF SCIENCE**  
**GALLOGLY COLLEGE OF ENGINEERING**  
**THE UNIVERSITY OF OKLAHOMA**

| Academic Year                                                                                                                           | General Requirements                                                                                                                                                                                                                                                | Program                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| For Students Entering the Oklahoma State System for Higher Education<br>Summer 2026 through Spring 2027                                 | Minimum Total Credit Hours ..... 120<br>Minimum Upper-Division Hours ..... 40<br><b>Minimum Retention/Graduation Grade Point Averages:</b><br>Overall - Combined and OU ..... 2.00<br>Major - Combined and OU ..... 2.00<br>Curriculum - Combined and OU ..... 2.00 | <b>Artificial Intelligence Engineering</b><br><b>B074</b><br>Bachelor of Science |
| OU encourages students to complete at least 30 hours of applicable coursework each year to have the opportunity to graduate in 4 years. |                                                                                                                                                                                                                                                                     |                                                                                  |

**Minimum Total Credit Hours: 120**  
**Minimum Upper-Division Hours: 40**

**Overall GPA - Combined and OU: 2.00**  
**Major GPA - Combined and OU: 2.00**  
**Curriculum GPA - Combined and OU: 2.00**

**Program Code: B074**

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. **Courses graded P/NP will not apply.**

**A grade of C or better is required in each course in the curriculum, including all prerequisite courses.**

### MINIMUM OF 40 HOURS REQUIRED FOR UNIVERSITY-WIDE GENERAL EDUCATION

| Code                                                                          | Title                                                                     | Credit Hours |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------|
| <b>Core Area I: Symbolic and Oral Communication</b>                           |                                                                           |              |
| <i>English Composition</i>                                                    |                                                                           |              |
| ENGL 1113                                                                     | Composition I                                                             | 3            |
| ENGL 1213                                                                     | Composition II                                                            | 3            |
| or EXPO 1213                                                                  | Expository Writing                                                        |              |
| <i>Language (0-10 hours in the same language)</i>                             |                                                                           |              |
| This requirement can be met by two years of the same language in high school: |                                                                           | 0-10         |
| Beginning Course (0-5 hours)                                                  |                                                                           |              |
| Beginning Course, continued (0-5 hours)                                       |                                                                           |              |
| <i>Mathematics</i>                                                            |                                                                           |              |
| MATH 1823                                                                     | Calculus and Analytic Geometry I <sup>1, 2</sup>                          | 3            |
| <b>Core Area II: Natural Science (including one laboratory)</b>               |                                                                           |              |
| PHYS 2514                                                                     | General Physics for Engineering and Science Majors (Core II) <sup>2</sup> | 4            |
| Natural Science Elective with Lab <sup>3</sup>                                |                                                                           | 4            |
| <b>Core Area III: Social Science</b>                                          |                                                                           |              |
| P SC 1113                                                                     | American Federal Government                                               | 3            |
| Choose one course <sup>4</sup>                                                |                                                                           | 3            |
| <b>Core Area IV: Arts &amp; Humanities</b>                                    |                                                                           |              |
| <i>Artistic Forms</i>                                                         |                                                                           |              |

|                                                                    |                                    |
|--------------------------------------------------------------------|------------------------------------|
| Choose one course <sup>4</sup>                                     | 3                                  |
| <i>Western Culture</i>                                             |                                    |
| HIST 1483                                                          | United States to 1865              |
| or HIST 1493                                                       | United States, 1865 to the Present |
| Choose one course (excluding HIST 1483 and HIST 1493) <sup>4</sup> | 3                                  |
| <i>World Culture</i>                                               |                                    |
| Choose one course <sup>4</sup>                                     | 3                                  |
| <b>Core Area V: First-Year Experience</b>                          |                                    |
| ENGR 1413 Pathways to Engineering Thinking <sup>2, 5</sup>         | 3                                  |
| <b>Total Credit Hours</b>                                          | <b>38-48</b>                       |

- <sup>1</sup> MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
- <sup>2</sup> Major support requirements that also satisfy University General Education requirements.
- <sup>3</sup> Courses taken to fulfill the Natural Science courses must be chosen from a University-Wide General Education Approved Course List (Core II). At least one of the Natural Science Courses must be a non-Physics course. All Science courses must be for science or engineering majors and come from the natural science list maintained by the department.
- <sup>4</sup> To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
- <sup>5</sup> Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment requirements.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

**Bachelor of Science in Artificial Intelligence Engineering accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and Similarly Named Engineering Programs Program Criteria.**

More information in the catalog: (<http://ou-public.courseleaf.com/gallogly-engineering/program-data-science-analytics/artificial-intelligence-engineering-bachelor-science/>).

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a **grade of C** or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code                                                     | Title                                               | Credit Hours |
|----------------------------------------------------------|-----------------------------------------------------|--------------|
| <b>Required Courses</b>                                  |                                                     |              |
| DSAI 1421                                                | Introduction to Artificial Intelligence Engineering | 1            |
| DSAI 3013                                                | Machine Learning for Data Science                   | 3            |
| DSAI 2823                                                | Discrete Mathematics for AI                         | 3            |
| DSAI 3023                                                | Big Data Engineering                                | 3            |
| DSAI 3123                                                | Machine Learning Operations and Model Management    | 3            |
| DSAI 4003                                                | Applied Data Science                                | 3            |
| DSAI 3203                                                | Scientific Machine Learning                         | 3            |
| DSAI 3333                                                | Data Visualization                                  | 3            |
| DSAI 4603                                                | Deep Learning                                       | 3            |
| DSAI 4323                                                | Ethics and Compliance of AI                         | 3            |
| ISE 4623                                                 | Deterministic Systems Models                        | 3            |
| DSAI 4613                                                | Generative AI                                       | 3            |
| DSAI 4014                                                | AI Capstone Project                                 | 4            |
| DSAI 5113                                                | Advanced Analytics and Metaheuristics               | 3            |
| DSAI 4523                                                | Reinforcement Learning                              | 3            |
| <b>DSAI Electives</b>                                    |                                                     |              |
| Choose 6 three-hour approved DSAI electives <sup>1</sup> |                                                     | 18           |
| <b>Total Credit Hours</b>                                |                                                     | <b>62</b>    |

<sup>1</sup> To be chosen from an approved list of DSAI electives available in the DSAI office and/or website.

## Major Support Requirements

| Code                                   | Title                                                                | Credit Hours |
|----------------------------------------|----------------------------------------------------------------------|--------------|
| <b>Math and Science</b>                |                                                                      |              |
| MATH 2423                              | Calculus and Analytic Geometry II                                    | 3            |
| MATH 2433                              | Calculus and Analytic Geometry III                                   | 3            |
| MATH 2443                              | Calculus and Analytic Geometry IV                                    | 3            |
| MATH 3333                              | Linear Algebra                                                       | 3            |
| ISE 3293                               | Applied Engineering Statistics                                       | 3            |
| <b>Additional College Requirements</b> |                                                                      |              |
| ENGR 2002                              | Professional Responsibilities and Skills of Engineers and Scientists | 2            |
| C S 1323                               | Introduction to Computer Programming for Programmers                 | 3            |
| <b>Total Credit Hours</b>              |                                                                      | <b>20</b>    |

## Suggested Semester Plan of Study

| Year      | FIRST SEMESTER         |                                                                         | Hours     | SECOND SEMESTER        |                                                                | Hours     |
|-----------|------------------------|-------------------------------------------------------------------------|-----------|------------------------|----------------------------------------------------------------|-----------|
| FRESHMAN  | ENGL 1113              | Composition I ( CORE I )                                                | 3         | ENGL 1213 or EXPO 1213 | Composition II ( Core I ) or Expository Writing ( Core II )    | 3         |
|           | ENGR 1413              | Pathways to Engineering Thinking ( CORE V )                             | 3         | PHYS 2514              | General Physics for Engineering and Science Majors ( Core II ) | 4         |
|           | MATH 1823              | Calculus and Analytic Geometry I ( CORE I )                             | 3         | MATH 2423              | Calculus and Analytic Geometry II ( CORE I )                   | 3         |
|           | HIST 1483 or HIST 1493 | United States to 1865 ( CORE IV ) or United States, 1865 to the Present | 3         | C S 1323               | Introduction to Computer Programming for Programmers           | 3         |
|           | P SC 1113              | American Federal Government ( CORE III )                                | 3         | DSAI 1421              | Introduction to Artificial Intelligence Engineering            | 1         |
|           | <b>CREDIT HOURS</b>    |                                                                         | <b>15</b> | <b>CREDIT HOURS</b>    |                                                                | <b>14</b> |
| SOPHOMORE | ENGR 2002              | Professional Responsibilities and Skills of Engineers and Scientists    | 2         | MATH 2443              | Calculus and Analytic Geometry IV                              | 3         |
|           | DSAI 3013              | Machine Learning for Data Science                                       | 3         | DSAI 3023              | Big Data Engineering                                           | 3         |
|           | MATH 2433              | Calculus and Analytic Geometry III                                      | 3         | MATH 3333              | Linear Algebra                                                 | 3         |
|           | DSAI 2823              | Discrete Mathematics for AI                                             | 3         |                        | Approved Elective, Social Science <sup>2</sup>                 | 3         |
|           |                        | Approved Elective, Natural Science with lab <sup>1</sup>                | 4         |                        | Approved Elective, Western Culture <sup>2</sup>                | 3         |
|           | <b>CREDIT HOURS</b>    |                                                                         | <b>15</b> | <b>CREDIT HOURS</b>    |                                                                | <b>15</b> |
| JUNIOR    | DSAI 3123              | Machine Learning Operations and Model Management                        | 3         | DSAI 4003              | Applied Data Science                                           | 3         |
|           | ISE 3293               | Applied Engineering Statistics <sup>2</sup>                             | 3         | DSAI 3203              | Scientific Machine Learning                                    | 3         |
|           |                        | Approved Elective, World Culture <sup>2</sup>                           | 3         | DSAI 3333              | Data Visualization                                             | 3         |
|           |                        | DSAI Approved Engineering Electives <sup>3</sup>                        | 6         |                        | Approved Elective, Artistic Forms <sup>2</sup>                 | 3         |
|           |                        |                                                                         |           |                        | DSAI Approved Engineering Elective <sup>3</sup>                | 3         |
|           | <b>CREDIT HOURS</b>    |                                                                         | <b>15</b> | <b>CREDIT HOURS</b>    |                                                                | <b>15</b> |
| SENIOR    | DSAI 4603              | Deep Learning                                                           | 3         | DSAI 4014              | AI Capstone Project                                            | 4         |
|           | DSAI 4323              | Ethics and Compliance of AI                                             | 3         | DSAI 4613              | Generative AI                                                  | 3         |
|           | ISE 4623               | Deterministic Systems Models                                            | 3         | DSAI 5113              | Advanced Analytics and Metaheuristics                          | 3         |
|           |                        | DSAI Approved Engineering Electives <sup>3</sup>                        | 6         | DSAI 4523              | Reinforcement Learning                                         | 3         |
|           |                        |                                                                         |           |                        | DSAI Approved Engineering Elective <sup>3</sup>                | 3         |
|           | <b>CREDIT HOURS</b>    |                                                                         | <b>15</b> | <b>CREDIT HOURS</b>    |                                                                | <b>16</b> |

<sup>1</sup> Courses taken to fulfill the Natural Science requirement must be chosen from the University-Wide General Education Approved Course List (Core II). At least one of the Natural Science Courses must be a non-Physics course. All science courses must be for science or engineering majors and come from the natural science elective list maintained by the department.

<sup>2</sup> To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

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